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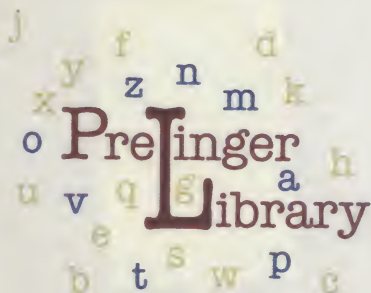
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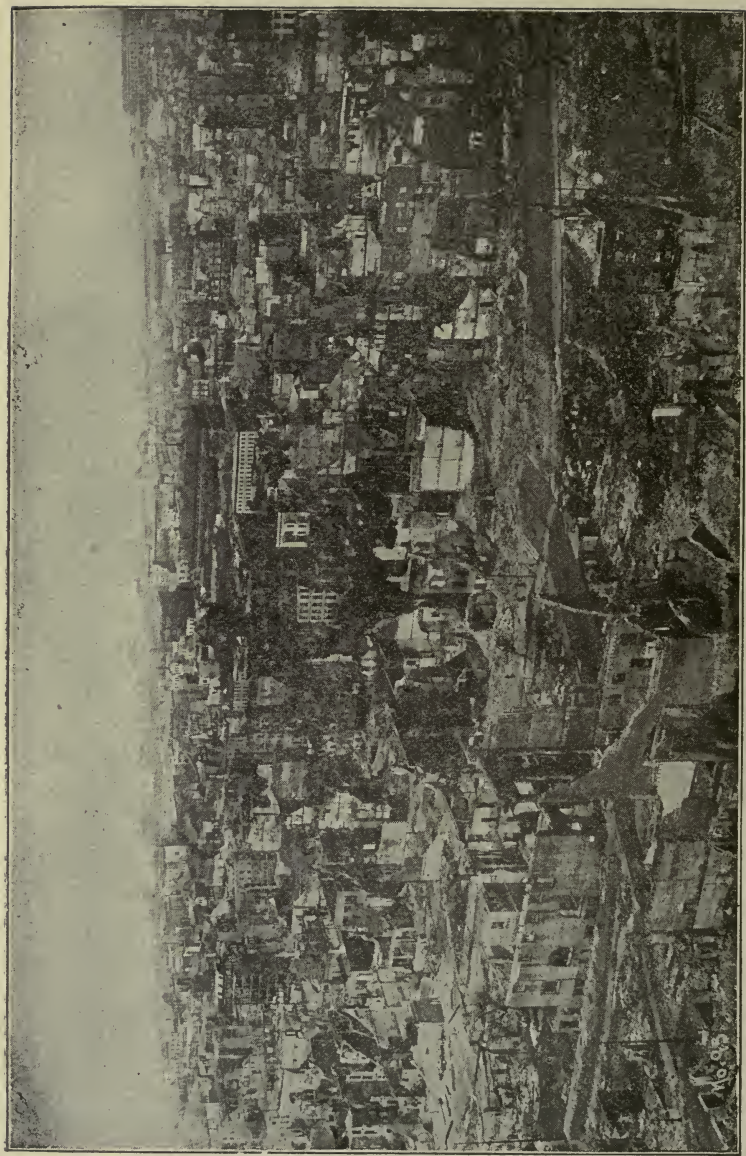
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RUINS OF SAN FRANCISCO AFTER THE EARTHQUAKE AND FIRE

California

Our Western Wonderland

by

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1923

A. FLANAGAN COMPANY
CHICAGO

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PRINTED IN THE UNITED STATES OF AMERICA

California

Our Western Wonderland

THOSE of us who made the *Little Journey through the Great South-West*, will not be content, having arrived at Los Angeles, to rest there. It may be called the southern gate-way to the real West, the West teeming with places of absorbing interest, in endless variety.

In the space of a few short days we intend to visit Mount Wilson, from whose summit we may look at the sun through a mirror telescope over six thousand feet above the level of the sea, or we may peer into the wonders of the ocean's bottom at Catalina, or, again, visit the Venice of the Pacific, admiring this copy of the famous Italian city visited on another *Little Journey*.

Moreover, to visit Los Angeles late in January, and find balmy winds, flowers and clear blue skies, when the rest of the country is covered with ice and snow, will make every drop of roving blood in our veins urge us to wander.

We are reminded of the poem we read somewhere at home and which has seemed so often to express our own sentiments on these trips of ours:

Beyond the East the sun-rise,
Beyond the West the sea,
And East and West the "wander-thirst"
That will not let me be;

It works in me like madness, dear,
To bid me say good-by,
For the seas call, and the stars call,
And Oh, the call of the sky !

I know not where the white road runs,
Nor what the blue hills are,
But a man can have the sun for friend
And for his guide a star
And there's no end of voyaging
When once the voice is heard,
For the river calls and the road calls,
And Oh! the call of the bird !

With this in mind we proceed to "wander" through
the "City of the Angels."



STREET IN LOS ANGELES

THE HISTORY OF LOS ANGELES

JUST as we are about to start a friend puts into our hands "The Traveler's Hand Book to Southern California," and we are soon deep in its pages, reading the history of this interesting city. We learn that it owes its existence to the Spaniards. In the year 1781, the King of Spain decided to colonize California. Spain had always claimed California as hers because it was discovered by the Spanish Explorer, Cabrillo, over three hundred years earlier. The King was afraid that if he neglected it any longer the British might seize it. Then, too, he wanted some "ports of call" where his ships, trading between Spain and the Philippine Islands, might stop to secure fresh water, fruits and other food supplies, make repairs and generally provide for the welfare of his sailors. Accordingly he arranged to establish colonies at several points, build fortresses for their protection, and at the same time send missionaries to convert the native people to the faith of the Roman Catholic Church. To carry out this purpose he sent Don Jose Galvez as his special representative in New Spain, (as Mexico was then called), with full authority to carry out his will. Lower California—the peninsula, that still belongs to Mexico—had already been colonized and missions had been established by the Jesuits for over a hundred years, and it was from the southernmost of these missions that the parties who were to begin the colonization of *Alta* (or higher) California were to start.

Don Gasper de Portolá was appointed military chief of the expedition, and he was to be Governor of the new country. His Lieutenant was Fernando Javier

Rivera y Moncada. The religious work was placed under the direction of Fray Junipero Serra, a Franciscan friar, who had been a missionary to the Lipan Apaches and other Indians in Mexico and had proven his great devotion to God and to the savages his life was given to elevate, civilize and christianize.

In September 1768 Rivera was sent to all the missions of the peninsula to gather from each such provisions, live stock, and implements as could be spared. He was also to prevail upon all the available families he could find to go along as colonists. Other messengers gathered from the churches furniture, ornaments and vestments for the Missions that were to be established.

Two vessels were loaded—the *San Carlos* which was started January 9, 1769, and the *San Antonio* which left La Paz February 15. They were to meet in the harbor discovered by Cabrillo over 230 years before, but rediscovered and given its present name by Viscaïno in the year 1602. Two land expeditions started, the first under Rivera and the second under Portolá. Serra was with the latter.

In due time all four parties met in San Diego, and a mission and presidio (or fort) were established there. Then a party was sent north to find the Bay of Monterey, where another mission was to be established, but somehow those in charge failed to recognize Monterey Bay and pushed farther north and discovered the Bay of San Francisco, one of the largest and finest harbors in the world, and where later, another mission and fort were established. The next expedition found Monterey and a mission and fort were soon built there.

Rapidly others were established, one of them being San Gabriel (founded September 8, 1771) which we shall visit later.

Ten years after San Gabriel was established, Rivera, who had now become Governor, was instructed to establish a town on the little river, some twenty miles



EPISCOPAL CHURCH, LOS ANGELES

away, and he brought forty-two persons from Mexico for the purpose, and on the 26th of August, 1781, the new town was started, while appropriate ceremonies attended the dedication of the *plaza*, or public square, on September 14. This was the beginning of the town that is now one of the wonder cities of the world, having a population of about 590,000.

STREET LIFE IN LOS ANGELES

THERE are so many differences between the streets here and those in Eastern cities that we can well spend a day, or several, in walking or riding through them.

The street cars here, as everywhere in the West, have the center closed, like our winter cars. Both ends are open and have two benches set almost back to back, lengthwise, leaving just enough space between for the conductor to pass through as he collects his fares.

The city is very modern. Splendid street-lamps, six white globes surrounding a central one, light the highways at intervals.

Barber shops, we note, have the front set in some distance from the walk, allowing room for a vestibule, in which the boot-blacks have their stands. We see ladies sitting on the chairs to have their shoes cleaned, which they seldom do in the East.

Stamp and coin shops and others devoted to Japanese curios are numerous. Tea bazaars surround a tall nine-story hotel, and then we enter a district of homes, all of which have verandas.

Groceries in this city have a wire netting for their entire front, instead of a substantial wall. This netting has doors that can be locked, so that whether the store is "open" or "closed" the air can circulate constantly. This is, of course, possible only in a rather rainless region, such as this is.

Flowers greet us on every hand. In January and February even the poorer women wear great bunches of violets. This is a city of flowers. The houses (outside the business section), are fairly embowered in them, and they grow in marvellous and delightful profusion.

We notice a *Ramona* Hotel, a *Ramona* Street, a *Ramona* Coach, and read in the papers of a *Ramona* Convent, a little town called *Ramona*, and in this way learn how much the people of Southern California think of the book *Ramona*, written by Helen Hunt Jackson, to arouse the people of America to understand the sad condition of the Indians of this region. It is a beautiful, tender and pathetic story. It is a romance that tells of a beautiful girl, half Scotch and half Indian, who was brought up by the Señora Moreno, a woman of great character, but with intense self-will and an exalted opinion of what was owing to her from all with whom she came in contact. She had plans of her own for *Ramona*, which were thwarted when the beautiful girl fell in love with, and married, Alessandro, the Indian leader of a band of sheep shearers. Practically driven from her home, *Ramona* joined her life so completely with that of her husband that she thus identified herself with the Indians, whose cruel sufferings are truthfully portrayed. Alessandro is at length slain by a wicked white man and *Ramona* returns to civilized life.

PATRIOTS, ALL

ONE THING in this connection we shall note times without number in the West, and that is the intense local patriotism of the people.

Every man, woman, and child, sooner or later in the course of a conversation will become the eulogist of the West in general, and of his home city in particular.

Here in Los Angeles you are led to believe that there

can be no city quite so progressive, so beautiful, so clean; as Jack Appleton's poem has it:

There may be other cities as pretty,
As splendid as cities can be,
But this is the city I live in,
And this is the city for me!

The citizens of Los Angeles have a right to be proud of their city, its beauty and progressiveness, and its innumerable interesting corners.

The quaintest and oldest part is "Sonoratown," so named because many of the families and earliest settlers came from Sonora, one of the provinces of Northern Mexico. It is located North of the old plaza and the mission chapel, the latter having been built sometime during 1814, when the corner stone was laid, and 1822, when it was formally dedicated. A number of the houses are of the old adobe (a-dó-by) structures, flat-roofed and whitewashed, so common in Mexico. Interesting signs, here and there, tell us that Mexican habits and customs are still observed. Here is a "tamale" vender, yonder a restaurant where the chief articles of diet are "chili con carne" (che-le kon kar-ne), red pepper with meat,— "tortillas" (tor-té-yas)—a kind of flat pancake made from flour and water—and the every day brown beans—"frijoles" (fre-hó-lehs).

The hill west of Sonoratown used to be called Fort Hill, as here the cannon were placed and a rude fort constructed when Los Angeles was captured from the Mexicans in 1847. It is now the site of the Los Angeles High School and many beautiful residences and semi-public buildings.

OUR FIRST CHINA-TOWN

Just behind the plaza is located Chinatown, another of the interesting sights of Los Angeles.

China-town covers a comparatively small district. The buildings are chiefly brick and most of them have verandas on the second story, on which there are plants and from which hang large balloon-shaped lanterns. Most of these are white with floral and animal designs in colors.



NEW YEAR DECORATION IN CHINA-TOWN

We are fortunate in having happened here now, as it is the time of the Chinese New Year, and so there are innumerable banners and decorations added, and the houses fly various Chinese flags.

Men go about with long braids or cues, wearing loose black silk jackets and clogs that remind us of Bosnia. Stores of Oriental wares have a dragon up over the door. In the main portico up-stairs, lanterns

are hung. Next door, a Jap may have his place, with the signs in Japanese.

A man in a blue vest worn over a black shirt, and with the cue down his back, passes.

There are many Curio stores. In them we shall find pretty Chinese tea-pots in the shape of an elephant or with two spouts; pictures with the frame carved, but



CHILDREN OF CHINA-TOWN

left unpainted; long streamers to hang from the walls; hideous looking dragons, and clumsy swords made of Chinese coins. We are tempted to empty our purses.

Against the walls at the alley corners hang signs in heavy Chinese characters on gay-colored papers. Here is the sign of a Chinese doctor. The orange colored placards with the black lettering are everywhere to be

seen, as also gay balloons, flowers, and queer dolls made of paper flowers.

There is a Chinese restaurant where we can taste chicken noodle a-la-whole-hok (whatever that may mean) and op-hoi-min, and chop-suey, and so on, but from half-past eight in the evening until midnight only.

We note how few and far between are the women, and that the few children we meet are gaily attired.

Few Chinamen come to the United States expecting to spend all their days here. They hope to return, someday, to their old homes, therefore, they seldom bring their wives, and this is the chief reason so few women are seen.

China-town is well defined and we pass out of it into a foreign quarter. Thence, we take the car back to one of the great hotels, that we may engage a place in one of the autos that make a three-hour trip through the city. But first, we drop into a restaurant for lunch, and are charmed to find bouquets of callas on each table.

SIGHT-SEEING IN AN AUTO

THE AUTOMOBILE gives us an opportunity of seeing more especially the residential part of Los Angeles.

We start not far from the Huntington Building, one of the most important in Los Angeles. It is named after Henry Edward Huntington, the railway magnate, nephew of Collis P. Huntington, one of the greatest railway builders the world has ever known. Henry received his railway training under his uncle, and when the latter died and left him a large fortune he came to Los Angeles, bought the street railway system, improved and extended it, until now it is the finest and most perfect interurban electric system in the world.

It radiates in every direction, reaching nearly every town within seventy miles or more, with large, comfortable and swiftly traveling cars. All the cars that go to outside places enter and depart from this building.

As it is Chinese New Year's we are again taken to Chinatown to see the ceremonies.

THE JOSS HOUSE AT "CHINESE NEW YEAR"

FIRST on the itinerary is a joss-house, the outside plain and like any other Chinese store building. A straight, narrow and short flight of stairs leads into a room that seems one mass of Oriental fantasies, a chamber most difficult to describe. By and by, out of the chaos, we are able to note that the walls are covered with an orange-colored paper inscribed with black lettering, and that on this there hang long series of slips, bearing the names of contributors to the fund to build the temple. Each temple has its own joss or spirit.

In the rear of the room is the altar. Here again fantastic designs support a platform which is draped at each side with curtains. Before the altar are placed tapers of punk of varying size and there are also tables with dishes containing various Chinese foods, everything from rice down to the orange and other local fruits, all left as New Year offerings to the idol.

Worship is held here from four to ten in the morning. Before the altar a light is kept burning, illumining the Chinese posters hanging down close by. Against one wall the great Chinese standard carried in parade, and the tubular mandarin umbrellas used on such occasions, have their places.

As we step out we hear close by the discharge of a

great bunch of shooting crackers, fired in celebration of the New Year.

We now return through the city by way of the Federal Building and the County Court House. The former building affords a striking testimony to the rapid growth of Los Angeles. When the congressional appropriation was made for its erection the city had a population of about 175,000. Before it was completed the population had grown to 350,000 and was increasing daily so that the building is already far too small for its needs. About a mile to the south we are in

RESIDENTIAL LOS ANGELES

SURROUNDED by handsome dwellings, many of them frame structures, with a broad porch on the ground floor, and short verandas before the center windows of the second story front. Nearly all these homes are set in good sized lawns, with large and beautiful palms at the front, and usually with pepper trees interspersed. As in New Orleans, there is generally a row of palms along the walk. Variations, however, are numerous. One place will have three massive flights of stairs leading up from the walk to meet at the lower terrace. Terraces are quite popular.

Another house will be completely covered over, all but the massive doors, with a low vine. Blooming poinsettias or a massive honey-suckle find much favor.

We glide through the West Lake section, where every house is artistic, beautiful and costly. This is one of the most charming locations in the city. It is on slightly elevated ground and affords to its inhabitants panoramic views of unsurpassed glory, majesty and

beauty. To the North the towering Sierra Madre (Mother Mountains) brood in loving tenderness over the cultivated San Gabriel Valley, and the eyes roam over scores of miles of olive, orange, lemon, grapefruit, almond and peach orchards, which, in blossom time, clad in tender pinks, snowy whites, dainty cream and other radiant bloom, give forth deliciously fragrant odors.

In Westmoreland beyond, the mansions become finer still. Mission and colonial styles in great varieties prevail. The bungalow and the imitation of the old log house are also to be seen.

At Pico (Pe-ko) Heights there are still other handsome homes. One street lined with tall palms fascinates us, and a girls' collegiate school, in a veritable bower of foliage, makes us envy its occupants. Hospitals are numerous, for many thousands of sick people come to California each year, from all parts of the country, in order to be restored to health in its perpetual sunshine and balmy air. Churches abound, for there are so many diverse elements in the population that every creed known to the religious world has its adherents.

Los Angeles is especially proud of its educational facilities. Most of its public schools were built in comparatively few years, to meet the rapid growth of the city. They are all equipped in accordance with the latest methods and afford a striking example of the American idea of giving to every child, however poor, the very best in education that can be obtained. Its polytechnic school is one of the largest and best equipped in the country and the work of its students

ranks high. There are many private schools and colleges, and also the University of Southern California, a Methodist Institution, with its colleges of Liberal Arts, Music, Fine Arts, Dentistry, Medicine, Law, etc., scattered throughout the city. There are two excellent art schools, one near West Lake Park and the other at Garvanza (one of the suburbs on the way to Pasadena). Southern California with its glorious snow-capped mountains, mysterious canyons, craggy ravines, forest-clad slopes, leaping cataracts, babbling brooks, enchanting foot-hills, trees from every land, fruit-laden orchards, gorgeous flowers of many thousands of varieties, rocky and sandy sea-shore, summer islands bathing in deep blue waters, pearly faced ocean, vessels of every kind which float—including United States battleships, Orient-bound steamers, Chinese sampans, Japanese craft, luggers, schooners, yachts, house-boats, tugs, and motor-boats—affords endless subjects for the artist.

To the East are vast deserts, with weird cactus growths, great alkali flats, moving sand-mountains, and sunrises and sunsets of such glowing colors that they dazzle the eye and thrill the senses. All these and hosts of other interesting nature objects attract the painter, and when is added the variety of human life found here, well may he think he is in an "artist's paradise." For not only are there all the civilized races of earth, but Hindoos, Chinamen in pigtail and native costume, and our own picturesque Indians from the mountains and from the pueblos of Arizona and New Mexico. Scores of pictures also, are painted annually of the interesting and ruined Mission structures, that

were established for the christianizing of the ancestors of these Indians, over a century and a quarter ago.

One great advantage of the balmy climate of Los Angeles and the surrounding country is that it affords the artist opportunities for out of door sketching almost every day in the year. What a wonderful privilege this is can be fully appreciated only by those who engage in the work.

Los Angeles is not only proud of being an educational and artistic center, but it glories in its Chamber of Commerce and Sierra Madre Club. The former is an association of business men who organized many years ago to further the welfare of Southern California in general and Los Angeles in particular. It sends exhibits all over the country and is always ready to send beautifully illustrated literature to every person who desires to learn about the country and its resources. The Sierra Madre Club is an organization of mining men, for Los Angeles is now the center of one of the greatest oil-mining regions in the United States.

NIGHT IN THE CITY OF CELESTIALS

AFTER supper we will do Chinatown in the company of a guide—one of the many little bands of tourists swarming through the quarter. Owing to the New Year's celebrations, hoodlums have recently invaded China-town, tearing the decorations and acting as vandals generally do; and so we foreigners, being of the same race as these, are regarded with no friendly eyes.

Everywhere on the balconies the gauze balloons are illuminated with electricity and look bright and gay.

Here and there children are shooting fire-crackers.

Again we visit a temple, entering by a similar narrow stair between the brick walls of a dark court, passing into a rear court and then into a room where a platform sustains two poles of red and black, which, in their turn, uphold a balcony; a double door leads off at each side.

We knock at a panel, which a Chinaman opens, and we pass through two sets of double glass-doors into a narrow vestibule, where more stairs lead on to the next floor and to the joss.

There, at the rear of the room, is the altar with its picture of the deity draped with green curtains; at each side are gay bunches of paper primroses. Before the altar are tied bouquets of fresh narcissus, in honor of the New Year; on the table in front there are, likewise, offerings of grain, cakes, and candy, each in a little china bowl. Chrysanthemums too are here. A lower table holds an incense pot, below which some heavy metal work completes the whole.

The walls of the room are hung with placards. In the center of the apartment, another altar has also fresh narcissus plants and little cups of food, as well as a plate of cakes arranged pyramid fashion. This is draped with heavy tinsel embroidery, while on the floor lie mats whereon the Celestial devotees may kneel and worship the idol at will. To the rear, lit by both gas and electricity, is a third idol; on one side are chairs draped in red.

We return to the streets. Over many of the doors there is a mammoth beech leaf of gilt paper, upon which gay-colored paper primroses are set. Pretty light effects are produced by the lanterns.

A doctor, we see, has red baize across his windows for

his sign. We peer into a pool-room where the Chinamen are in American costume. Now and then a woman in black trousers, or some children in gay costumes, go by. In the shops we note that every store has a partition across it, with a door leading into the rear, where the storekeepers stay the greater part of the time.

We note that the barbers shave the entire head all but the cue, then clean out the ears with what resembles a long darning needle, which they wipe off on a piece of paper. Then they tie the cue up in a knot.

Here and there we see some Chinese smoking the long, flute-like opium pipe. Many of the other shops are lit with lamps. There is a restaurant thronged by American tourists; and then we pass up another flight of narrow steps, ending abruptly at a door, and enter a Masonic Hall, for the Chinese are real *Free Masons*. Here again there is a gay altar and before it the table with the bowls of offerings, while the papers of the lodge's incorporation hang on the wall.

On the top floor of another building is a Chinese tea garden, whose recessed balconies are lighted by huge globular lanterns. Here fine banquets are often served, for which live fish in tanks are shipped from China.

Other narrow streets, where we should be lost without our guide, bring us to a little narrow hall filled with smoke, and a door admits to an opium den. There, at each side of the narrow aisle, cots of matting are set on which the Chinese lie, feet to the passage, in their black silky jackets, smoking the opium pipes. The pipes, as was said, are much like a flute with a porous porcelain cup near one end. At the smoker's side is a tray with a little glass spirit lamp of red alcohol, burning away

beneath a bell-jar. They take a bit of the opium at the end of a long needle, heat it over the flame until it boils, then set it in the bowl of the pipe and smoke away to oblivion. There are perhaps a dozen of these smokers here.

Continuing our progress through the streets, we find stores that sell all kinds of pretty Chinese trinkets. There are card cases of leather, back scratchers of bone, tea packed in artistically designed cans, and candied ginger, all offered at such low prices that we find them irresistible.

RAISING OSTRICHES IN CALIFORNIA

It is a good rule of travel, if one would thoroughly enjoy one's trip, to vary it as much as possible; and so, while we have by no means seen all that we intend seeing in Los Angeles, our next expedition will be into the suburban town of South Pasadena (Pas-a-deé-nah) in order to visit the world-famous Ostrich Farm.

On our way, in the electric cars, we will be busy



FEEDING THE OSTRICH

noting the street-life of Los Angeles. In the grocers' shops, for instance, we see the artichokes, large as we have seen them only in France. Then, we remark the numerous lady barbers about the city. We will catch a glimpse of the "Poodle Dog" restaurant, which, however, is only a cheap imitation of the famous restaurant of the same name found in San Francisco, and then follow the dry bed of the Los Angeles River, which in winter is sometimes a raging torrent. A large biscuit factory, and another large plant for making concentrated fruit syrups, interest us; and then we are on the famous Mission Road, the boulevard, as it were, of Pasadena.

Pretty homes, with poinsettias, callas, geraniums and nasturtiums, to say nothing of palms, finer grounds with tall palm trees both on the lawns and along the curbs, and the fine buildings of Occidental College, border the way to Pasadena. To all intents and purposes we can not tell where Los Angeles ends, and the new settlement begins, but the latter is in reality a separate town. Pretty country hills and valleys lead off until finally we come into another settlement and the cottages of Pasadena are about us. Far in the distance San Antonio, the great peak of the Los Angeles section of California, rises into view.

Immediately we find ourselves at the entrance to the Ostrich Farm, which is in itself attractive. There are flower-beds about the door-way by which one enters the farm, which, in addition to being put to the practical use of raising the birds for their feathers, is also a recognized show place. The birds for the farm were originally purchased by the owner at Capetown, and

shipped over in a chartered vessel. Just before the ship was to sail, however, the city fathers passed a law forbidding the export of ostriches, and so the master had to slip out in the very nick of time, for today to export a single ostrich from South Africa requires the payment of an export duty of five hundred dollars. Of



OSTRICH SWALLOWING ORANGES, SOUTH PASADENA

the thirty birds so imported all but six have died, but from those six the flock has grown.

If we were especially interested in ostrich breeding we would make a flying trip out into the Lahabra (Lah-hah-brah) Valley, where the real breeding place lies, and where today there are several hundred ostriches, browsing on a hundred and twenty acre tract of alfalfa.

Out there they have about a hundred and forty chicks a year, breeding-time occurring in the spring.

Usually there are fourteen eggs in the nest of the ostrich, each of these eggs weighing about three pounds. The eggs take about forty days to hatch, and when laid (as they should be) in the spring time, about two-thirds will yield birds. The nest itself is a mere hollow on the ground into which the eggs are set. The mother bird, being grey in color, sits upon this nest in the day time, the male, being black, sits on it at night; their respective colors thus affording the birds protection.

If we are fortunate we may feast on ostrich eggs some time at Pasadena, where the big hotels make a feature now and then of an ostrich omelet for their guests.

The little ostriches, which are frequently put into incubators on hatching, are the cutest things one can imagine. At the outset their feathers are brown, and stick out much as do the spines on a porcupine. Until about six months of age, birds of both sexes look alike; after that the plumage of male becomes darker. Great care must be taken with these baby birds. The temperature in the incubator is usually kept at 103 degrees, or about the degree of heat of their native land, and it is known that a fall of the temperature to sixty degrees will harm the birds if they are in draught, though in the sun they can stand even colder climates.

At two years of age the birds attain their full height, at four they are mature. At six months some of them stand six feet high, and it is estimated that they grow twelve inches a month for each of the first six months of their lives.

When the birds are eight months old the first feathers

are plucked. After that every ninth month witnesses a plucking. These first feathers, however, are inferior ones, twenty to twenty-two inches long, being cut really in order to make way for the better crop to come. When the plucking, which is really simply cutting the feathers with shears, is to be done, a stocking is drawn over the head of the ostrich, when the silly bird, no longer seeing danger, imagines the foe to be gone. Care, however, must be taken not to get in the way of the powerful leg of the ostrich, which can strike a man to death in an instant.

When the ostrich is fully matured, twenty to twenty-four plumes will be taken from each wing, and from forty to fifty heavy feathers extracted from the tail. Feathers and plumes are sorted and divided into some hundred and forty grades, though only about twelve of the commoner of these are known to the layman. Ostrich feathers, curiously enough, are sold out here by the pound, bringing from four to a hundred and twenty-five dollars a pound. Feathers bringing a hundred and twenty-five dollars the pound will probably sell at two dollars a plume. Plumes, it is not always remembered, do not grow as we usually see them, but consist of three feathers, laid one on the other, the "quill" part of the upper two being scraped very thin, so that it may be sewn onto the stem of the lowest feather. Then the end or tip is curled, and the plume is ready for dyeing or for use in its natural color.

The ostriches we note, as we walk among the runs, are all put out in pairs. When young, the little birds are allowed to run together indiscriminately. They then pair off, each selecting its mate, and these couples

remain constant to each other for life. That there is money in ostrich raising may be realized from the fact that adult birds have been known to pay annually an equivalent of ten per cent interest on eight thousand dollars. Average birds, however, may not yield more than thirty dollars a year in feathers, for the plumes are so light that all the feathers off one bird will not weigh more than a few ounces. Birds themselves are seldom sold, but when they are, each bird will bring three hundred dollars or more.

From the yards, if we are privileged visitors, we will step into the building where plumes and other feather articles are prepared. Feathers are brought in off the birds in bundles, looking much like stacks of close-grained, dirty peacock feathers. They are washed



A PASADENA HOME

in ordinary water by a peculiar process and then some of them are dyed. In order to make the plumes, then, the quills are cut off on the front and back by scraping down, as we have said, with a piece of glass, until very thin, when one feather is laid on the next, and three together go to form the quill. After this they are curled. Feathers, in fact, can be prepared to put on a hat in three hours from the time they were taken from the bird, but this is seldom done. Boas, too, are manufactured here, the feathers being treated as are the plumes, but they are of a heavier sort, and then cut and steamed in order to make them pliable for curling.

From the factory we will again return to the ostrich runs, for a crowd of visitors has gathered now and an attendant is feeding oranges to the birds. Tourists never tire of watching the ostriches snap at and catch the golden balls, and these then gradually making their way down the long snake-like neck.

BEAUTIFUL PASADENA

FROM THE ostrich farm we continue by car on to Pasadena, "the Crown of the Valley," a place of suburban homes and palms, of elegant tourist hotels, adapted to the balmy winter season which attracts wealthy tourists from all parts of the world to come and spend their winters under the influence of its charming allurements.

Usually the tourist does not include hotels in his sight-seeing, feeling that he gets enough of these without, but in California we should be very unwise did we not make a complete tour of all these leading hotels, so magnificent and so unique, in many cases, are their

ittings. Here at Pasadena, for instance, one hotel, a large Moorish structure, rises in private parks of palms, pepper-trees, pines and cypresses, with gardens of roses, geraniums and carnations.

The hotel itself contains five hundred and fifty sleeping rooms, and is able to accommodate eight hundred guests. Often in the California "season," which lasts from November 23rd to about the 10th of May, a hotel like this will be crowded to the utmost.

If we had begun our little journey somewhat earlier in the winter, and could have been at Pasadena for New Year's day, we should have witnessed one of the most beautiful spectacles the country affords, i. e., the famous Pasadena rose tournament.



THE BRIDGE AT PASADENA

THE ROSE TOURNAMENT

WHEN almost all the rest of the United States is wrapped deep in snows, and the flowers are beautiful only in conservatories and perhaps in the homes of flower-lovers, then out here in the Golden State they make merry with roses, the very queens of the floral world. This tournament at Pasadena is distinctly a civic affair. There is a local Tournament Association to which any one can belong on paying a nominal fee, and its some two hundred and fifty members are the leading business men of Pasadena. These take in charge the tournament, and whether the price of flowers be high or low it is held each year. The revenue comes largely by the sale of tickets to the tourneys after the parades, but the parades are the great center of interest.

Any form of vehicle, from a California stage coach to an automobile, can enter, providing only that it be decorated with flowers. Houses, too, along the line of march are decorated with roses, until Pasadena is one wealth of flowers. As one writer put it, "There is the red of maidens' cheeks and of roses, there is the white of fair brows and of dimpled arms and roses, there is the deep blue sky, to complete the national colors. Then, at that time of year, the days have a peculiar delightful freshness, and the mountains are curtained in velvet for back-ground, on which the yellow sun-light plays upon waving banners and flowery equipages, and on lawns dotted with flags and flowers. Sweet showers may have cleared the air just before, and there will be an ocean breeze, scented with blossom perfumes

from the valley of San Gabriel, to add beauty to the whole.

"The tournament opens with trumpet blast sending a thrill of joy into the heart of every spectator. Then there files out the procession, slowly so that all can see, while bannerets of red and white are flown from windows crowded with people. Each entry has its own particular admirers, so that there is continued applause along the line of march."

Especially among the wagons decorated by the different public schools is there no end of friendly rivalry. Hotels and associations, too, compete, so that there will be any number of effects. There will be a pink and white flower garden on a wagon, enshrined in flowers, an old stage-coach of the forties, an Indian tepee of leaves, huge baskets of buds, living violet and lily beds, with sweet young school girls dressed in white in their midst; in short, there will be any and every manner of floral decoration, but in them all, roses predominate. So it is rightly called the tournament of roses. Even at the time of year when we are here, well on towards the end of January, we shall still hear them telling of just which school took the prize, and why, and of who was the queen of the roses, and perhaps see pictures of this float and that in the windows.

THE MANSIONS OF PASADENA

WE SHALL now wish to see the homes of the well-to-do, whose riches have made all this possible.

We will hire a carriage for the afternoon, that being the best available means. We will make our way then at once to the Orange Grove Avenue district, for which

the city is famous. Almost at once we are out of the "city," by which term the commercial and business part is usually understood, and in residential Pasadena, the beautiful. Here, too, the streets are fringed with pepper-trees, and lined along the curbs with palms, and behind the walks there are quite generally pretty box-hedges.

The names of the people residing here are called off by rote by our driver. There is the large handsome home of Merritt, the millionaire. Next to it is that of the Woodburys, a delightful old white frame house. A bit farther on lives Sprague, of Sprague and Warner, the Chicago wholesale merchants. This house is built in old English style, and has green lawns rising in ter-



BUSCH RESIDENCE PASADENA

races around it. A noted Los Angeles banker, has likewise a beautiful home, recognized from the avenue by its yellow turrets; and so it goes on and on and on, seemingly without end.

The variety of styles to be seen in these places is almost incredible. It reminds those of us who made the *Little Journey to New England* of Magnolia or Newport, and those who are to make *The Little Journey to the Middle States*, of the fine homes we shall see at Elberon and along the Jersey coast. Some are heavy in style, others are simpler, but practically all are of frame construction. We remark one house which has a curious indented center, this indenture serving to form a great porch, supported by four yellow pillars at each side, these being joined at the top by heavy beams of wood. In the vicinity of the pretty homes of the packer, Cudahy, and of Warner, of Sprague and Warner, an attractive kindergarten building claims our attention.

But now young pepper-trees and palms and box-hedges begin to hide the places from the road. Many of the houses are rambling, and there are dark cozy cottages completely covered over with ivy. On the heights we see a mansion, built much in the style of an English castle; but sheltering, instead of an English nobleman, one of the Standard Oil barons.

As we pass outside the limits of Pasadena we are shown the magnificent estate of Sam Ellerton, the cattle king of Chicago, also the simple little frame home of Mrs. Garfield; and, across the street from it, the home of Mrs. Childs, wife of the famous editor of the Philadelphia "Public Ledger."

One of the most famous places of Pasadena is the home of Mr. Adolph Busch of St. Louis, of Anheuser-Busch fame, and especially his "sunken garden." Orange Grove Avenue, where it is located, is the show avenue of Pasadena's residences. It "backs" upon the Arroyo Seco (Dry River), a deep and wide ravine through which the winter's rains occasionally pour in a raging stream. On the near slope of the Arroyo Mr. Busch has made his sunken garden, a deep basin-like lawn, surrounded by walks, shaded with every variety of shrub and tree, and made gorgeous with millions of ever-blooming flowers. Here, too, are strange cactuses, seldom seen away from the deserts, but which in their flowering season, are covered with rich pink, purple, creamy and other blossoms that give out most delicate and delicious odors. A small army of men is required to keep this garden in condition.

We next take a peep at the home of "Bob" Burdette, whose accounts of the trials of a boy, told from the lecture platform, have so often delighted us, and then at the former home of Professor T. S. C. Lowe the inventor, and builder of the Mount Lowe Railway. After that we are driven out along the Arroyo (Ah-roy'-yo) Terrace, where we can overlook the vast valley, the former bed of a river wide and lovely. Beyond we can discern the observatory on Mt. Lowe, and on Mt. Wilson, still higher, another observatory is visible. Then, skirting the grounds of another millionaire's estate, we see the ivied cottage which Helen Hunt Jackson, author of "Ramona" often visited.

We now return to Los Angeles in order to get well rested for our trip on the morrow.

THE LARGEST PIGEON-FARM IN THE WORLD

FOR OUR next morning in the "City of the Angels" we have planned a visit to the largest pigeon farm in the world. To get there we take the Garvanza (Garvahn'zah) car line, which gives us an opportunity of seeing the rather pretty Elysian Park, its slope covered



MAMMOTH PIGEON RANCH

with beautiful flowers, and of crossing the Los Angeles River, now a dry water course making its way among high hills.

The pigeon farm we find to be one of the most beautiful sights we have ever met with on our travels. The cotes are built at the foot of a lofty scrub-covered hill. These are really a series of wooden tables, three in

a set, on each of which six tiers of cotes are placed. In these tiers there are seven pairs of holes apiece for the birds, fourteen therefore for a tier, eighty-four to each of two sides of a table, one hundred and sixty-eight on both sides, and five hundred and four to each tri-table arrangement. Across the top, running in the opposite direction, are three other tiers, six pairs of holes each in the lower roof and four pairs on the others swelling the total to five hundred and sixty-eight in all for every three-table arrangement.

In and out and round about these are the birds. Most numerous are the pure white pigeons, with pink bills and pinker feet, and black glossy eyes surrounded by a yellow circle. Other birds have the head of black, with iridescent feathers that change from black to purple and then turn from purple to black again. Still others have a white head with a black spot at the eyes and a splash of black on the breast, others again are a medley of white and black.

From this multitude of birds there proceeds a perpetual cooing, like the whirl of a mill.

One likes to linger and watch them, as they eye the stranger. Then of a sudden some one bird takes fright and his warning note causes them all to rise and be off like snow-flakes in a storm, snow-flakes falling upward instead of down.

There are perhaps sixty thousand pigeons here, and most of them have paired off for life. Some of the birds lay all the year round except in the fall, when they "lay off," as do chickens, for the moulting. There are two eggs to the nest and these take about eighteen days to hatch. It is interesting to make a comparison

with the ostrich egg we saw at East Pasadena. The adult pigeons feed their little ones as long as they are permitted to do so. But the squabs are taken when about three weeks old, and killed for the market, the little birds at that age bringing from two to three dollars a dozen.

It requires about sixty bushels of grain a day to supply the wants of the pigeon farm, or, as they call it here, the pigeon ranch.

OIL CITY IN MINIATURE

FROM THE pigeon farm, the largest today in the country, we go by street car cityward once again in order to visit the miniature Oil City. This is a district almost in the heart of Los Angeles, where oil was struck, a boom occurred and people built, or permitted to be built on royalties, derricks in their front grounds and back-yards and in fact in every possible place.

This was about twenty-four years ago, and while oil was found, it was not in such quantities as to prove the expected bonanza. Now the wells produce just about enough oil to pay for pumping, but they give to the city its suburb of derricks, a thing unique in the West.

SEASIDE RESORTS ON THE PACIFIC

TIRING of city and city life, we will now take our first view of the Pacific and also of the delights of the summer cities on its shores. The oldest of these is Santa Monica (San-tah Mon-e-ka), where is located the "longest wharf in the world."

To get there we take one of the traction cars entering Los Angeles. The ride, for the most part through



AT SANTA MONICA

rolling country, shows the productive nature of the soil. There are a number of small farms, but many large areas are planted to strawberries, blackberries, tomatoes, etc. Los Angeles is a large city and needs many fruits and vegetables to supply her tables.

A number of little cottages, summer or rather winter homes, border the road by which we enter the city, and then beyond we see the great ocean, the largest in the world. We cannot pass it by without giving it a glance, though we have opportunity for but a fleeting one.

THE FIRST VIEW OF THE PACIFIC

Our first impression is of its beauty. Possibly because it is so much more pacific than that other ocean, the Atlantic; the water seems bluer than we remember ever to have seen the Atlantic. The white ripples are all

gentle and playful. There are benches under a row of trees some little distance back from the shore, and here we sit to meditate and listen to the breakers.

We think of the lands far across, China, Japan and the rest of the Orient. To sail west to reach the east—that longing now fills our souls.

As we have come in the morning and as the afternoon is the time for the crowds at Santa Monica, we do not find the place as lively as the New Jersey resorts, and we can make a tour of it at our ease. There is a palm drive, which we follow to the innumerable bathing establishments. The sand, however, is irresistible, and pretty soon we are walking up the beach, ankle deep in it. Here and there a flat blue pebble or stone lies on the sand; shells are not numerous.

Landward we can see the great hotels and the cottages, the streets sloping up to the two or three main avenues which run parallel with the ocean. Practically everywhere there are pretty, simple cottages, so that the whole seems very much like a replica of Asbury. We find even the waffle-houses and the tin-type booths and the board-walk along the cheaper hotels. On the ocean there are more wild ducks, and on the beach we find a little seaweed with small air balls to explode, such as we found along the Atlantic on our New England *Little Journey*. Boys are bathing in numbers now, girls stroll about the beach in sunbonnets, grown-ups are preparing for their dip.

There is a large bath-house built out on a pier, having a hundred and twenty-nine rooms on each side of the pier. One side is for men and the other for women, and we resolve to indulge in a swim ourselves. As

high-tide extends from 1:35 to 7:29 P. M., we shall have to wait in order to bathe at the best time, and so we join another *coterie* who are fishing from the end of the pier. Later we sit for a while on the sand, beneath one of the Japanese umbrellas which are such features of this beach, and then go for a stroll beside the water.

OCEAN PARK A SECOND ASBURY

BY AND BY we are beyond the limits of Santa Monica and in Ocean Park, practically a suburb of the first, but reminding us even more by its cottages of Asbury. Here is a toboggan slide out into the sea, which we shall want to try, and then the souvenir stands and the fruit booths, the soft-drink venders and the like, not to mention the Casino, will all exert their fascinations upon us.

THE SHELL INDUSTRY OF THE PACIFIC

THERE is one booth in particular in which we want to linger; it is that in which shells are sold. With us in the Middle West and East the shell is perhaps used as an ash-receiver or to stand before the grate and for little else, but out west there are many persons who pride themselves on collections of shells. Not only that, but the makers of the little shell jewel cases and the like must all be supplied. So there are men and women who go out to gather shells—the men principally Japs and Chinese.

The abalone (a-ba-lo'ny) of course is coveted more than any other. This we ourselves shall find in profusion near Monterey. The abalone is the large half-

shell with the brilliantly iridescent interior that is so often seen in homes and bazaars; it is to be found on the west coast of California wherever there are rocks, as it is attached to the lower side of the boulders. Since the abalones have been getting scarcer the government has protected them, and one may take only those over fifteen inches in circumference in the green, blue and red shells, and those from six to seven and three-quarters in the black.

Not alone for the shell, but for the meat itself do the fishermen search for the abalone. This mussel is much like a clam, but for shipment is usually dried and then resembles nothing so much as a bunch of dry, thick cloth, or a dry sponge minus the usual holes. Housed inside its one shell, this mussel has a powerful suction, like a fly's foot, which holds the shell to the rocks, so that it can be pried off only with a crowbar. Usually, therefore, the abalones are taken at low tide when the men can get under the rocks and pry them off. At other times three or four fishermen go out in a boat and dive sometimes eighty feet deep to get them.

The meaty part being scooped out, for sun drying, or else for the cannery at San Pedro (which puts them up for Chinese export), the shells are sold to curio dealers, at twenty to a hundred dollars a ton. The finest variety is the blue, then the green and the black, the latter noted for its pearl. All manner of novelties are ground from abalone by means of carborundum-wheels and sharp pieces of metal. The "finishing" of an average shell takes perhaps twenty minutes and it will sell for fifty cents.

There are innumerable other rare shells to be had 17

this shop; the *circummula carpentonno* (sir-kum-mullah kar-pen-tun-no), the rarest shell of the Pacific, a little thing three inches in length, a specimen of which will bring sixty dollars; the plum-shaped roseate bracopodus (brack-o-po-dus) that is equipped with a regular stem, and many others.

From the shell store we make our way to a restaurant near the surf, where sea-bass is served, to indulge in an ocean luncheon. After our swim, in the afternoon, the spell of the sea upon us, we loiter in the sand, sauntering hither and thither, up to the bounds of the new amusement resort, Venice, enjoying our holiday thoroughly.

In the evening we sup at one of the fine hotels of Los Angeles to get a taste of their fare and their service. There are oysters, as is usual out here in the West, then *consommé* with crackers, broiled fish and potatoes and olives, with which a California sparkling wine is served. After that we have duck, with egg plant and asparagus, a wine jelly served in regulation wine-glasses, and assorted cakes and coffee.

BY BURRO UP MT. WILSON

THAT THERE is no lack of variety in California sight-seeing this week's itinerary will assure us. From the sea level at Santa Monica, we are destined to climb to the mountain peaks in our ascent of Mt. Wilson, stay over night among the clouds, and on our next return to the level of Old Ocean make what is practically a submarine outing to look at the sea-bottom.

An excursion up Mt. Wilson such as we plan is a trip not generally made by the tourist, who prefers the

comfort of Mt. Lowe to the greater beauties of Wilson. We repair by street car once again to Pasadena. As we have made this trip before, we purchase from one of the news-dealers the papers of our home city. These news-dealers' carts with the leading dailies from



CORRAL OF MULES FOR ASCENT OF MT. WILSON

all over the country are a feature of street life in the California cities. As the ride out toward Sierra Madre is not particularly attractive, we can read our papers with a clear conscience.

Arrived at the end of the line, we mount the burros to climb Mt. Wilson. Grown-up people ride on the little beasts, unless very heavy, when they are required to hire a mule. As the mule knows the way and there is but one trail, we shall not need to bother

with guides. Very likely we shall meet travelers going afoot up the mountain, and shall keep them company, giving them the use of our animals occasionally that we may "stretch our legs" by walking. Those of us who made the *Little Journey to the Balkans*



HOW WE ASCEND

will constantly be reminded of parts of that trip on this ride.

Unlike the Balkan burros, however, these donkeys or burros of ours want to loaf all the way, and not that alone, but to nibble the green leaves of the shrubbery, and we are forced frequently to employ a little whip. Then they have a bad habit of ambling most carelessly along dizzy ledges, so that we rather prefer walking to risking ourselves on their backs, even though

we are assured, from what the stableman told us before we started, that we are perfectly safe, and only do this "to scare tenderfeet."

When we are not in the rather stunted pin-oak forests or treading over parterres of resurrection-vine, and listening to bird-songs and the babble of a brook, we are enjoying vistas of the great Pasadena Valley, with its square, olive-hued orange groves and its fertile meadows stretching to other mountains.

Now and then too we meet some traveler coming down from above, who jokes with us about the ride. It was a quarter to eleven when we left the cars; it will be half-past one before we reach Orchard Camp, a little lunching-station and half-way house on the trail. Here and there humor, if not beauty, is added to the trip in the guise of signs painted by some wag, on the rocks just at the most difficult places, such as "Oh, joy," and "I wish I were an angel."

A CAMP IN THE SIERRA MADRES

THIS half-way house is most convenient as a resting place for those to whom the journey is wearisome. It is just a small, unpainted shingle shack consisting of a single room; outside is a summer-house and there are also some bottles. The camp is in charge of a young man in corduroy trousers, blue shirt and heavy suspenders, who stays here the year round, though often for days not a soul goes by.

This young man, like so many others out here in the heart of the Sierra Madres, is a trapper. During the colder months of February and March, when at this elevation (3250 feet) the snow lies deep, he may trap

deer, foxes and wildcat, to say nothing of coons and badgers---sometimes, though rarely, even a mountain lion.

In the summer his solitude is often broken. Mountain-lovers hire tents and raise them all about his solitary cabin, or come here for supplies when camping out in the mountains, so that life in the camp is varied enough to be endurable. We certainly enjoy the coffee and sandwiches and the wild cherry phosphate that is served us, in spite of the fact that it has all had to be carried up by donkey.

SIX THOUSAND FEET ABOVE THE PACIFIC

FROM this point, the trail becomes very steep, the forests, of an oak whose leaves resemble holly, are very dense. When we are able to catch an occasional bird's-eye view, it is over vast expanses.

Instead of making the direct ascent of one peak, as when we began the ascent of Mt. Wilson we supposed we should do, we find that in fact we zigzag back and forth, in and out of canyons that separate the ridges, till we reach that final mountain, and then climb on and up to its summit. In these silent forests, where only the chirp of the birds breaks the silence, we occasionally come upon some pack train of six mules, the leading animal bearing a bell, and are reminded of the road from Rjeka to Banjaluka of our Balkan *Little Journey*, for the scene is almost identical.

When we come out on a camp which is known as Santa Anita Heights, we have that sense of being at an immense height, under the eaves of the world as it were, which Himalayan travelers experience.



SCLAR OBSERVATORY, MT. WILSON

The sun is beginning to sink, and we note the reflection of the sunset on the eastern horizon as though Old Sol were really sinking there, whereas as a matter of fact he is still almost midway between zenith and sky-line. This is a phenomenon seldom encountered by the traveler.

When we at last safely reach the summit of Mt. Wilson, the hotel, a delightful little tavern, and some cottages are disclosed, among tall weather-beaten pines. The hotel is really no more than a chalet cottage, sitting-room, dining-room and kitchen. We wonder where we are to sleep.

By and by, after again appeasing our hunger, we are led to the cottages. These are of unpainted shingles,

and resemble the chalet of a Swiss homestead; they consist of just one room apiece. Each cottage is part of a circle that encloses the peak, so that all of them, from their little front porches, have that gorgeous view of the valleys. And here, on the mountain-top, we are to spend the night.

AN OBSERVATORY LIKE NOAH'S ARK

WE DEPOSIT our belongings and refresh ourselves with a washing which our long mule ride has made doubly necessary, and then stroll through the forest, on to another bluff of the mountain-top. Here, visible from afar, is located what is perhaps the most curious observatory in the world.

The structure is of canvas, so as to admit the air and have the temperature inside the same as that without. The canvas is snowy white and built in the shape of an ark. A commanding site has been selected for it, and from below and in fact from wherever seen it recalls at once Noah's home stranded on the top of Mt. Ararat.

Inside this peculiar observatory is a telescope entirely different from that which most of us think of when the word telescope is mentioned. Instead of being composed of lenses fixed into a big tube through which the observer gazes into the heavens, this telescope is what is called a reflector. There are two large mirrors, one with a diameter of thirty inches and another of twenty-four inches. From these mirrors the sun is reflected by means of a prism into the magnifying lense into which the observer looks. This telescope is used expressly for the purpose of photographing the sun, and

already a large number of most valuable photographs have been obtained. These photographs show the changes that take place day after day in the appearances and size of the sun-spots.

While we are perhaps not sufficiently advanced in the science of optics, let alone astronomy, to under-



OUR HOUSE ON MT. WILSON

stand all that the kind director explains to the rare visitor who chances to get inside the place, we can jot down the fact that it takes about two months for two men to finish such a mirror as these, so fine is the surface. The polishing is done with jeweler's rouge on pads of chamois skin. Even when finished and mounted here, the mirrors are burnished over again

every tenth day. The glass of these mirrors is four inches thick and is set upon a silvered surface.

As evening comes on, we leave the observatory. We are enchanted with our surroundings; as we stand on the platform high out over the valley, behind us rise the tall pines of the forest. At our side is the ark, like some mighty specter. Below, other somber forests roll to the valley, which in turn extends far off to the sea. We can even see from our vantage point a ship away out on the Pacific. The stars are peeping out, the moon appears, and not since those starry nights on the Mediterranean of which we had a taste on our *Little Journey to Austria Hungary* have we enjoyed an evening so much.

Nor do the delights of this excursion end here.

AN OLD-FASHIONED EVENING

AFTER supper all gather about a great log fire burning beneath an old-fashioned chimney, such as we have not encountered since we left New England. Two Yankees from New England who are present tell stories of Barnum, another guest pops corn for all, and while we copy our day's notes we enjoy the situation thoroughly. Then by invitation we make our way back to the observatory to see the moon through the telescope. Although the latter is intended primarily for solar work, the moon too can be observed and is certainly a splendid sight as now viewed, its craters and cones and valleys all made distinct.

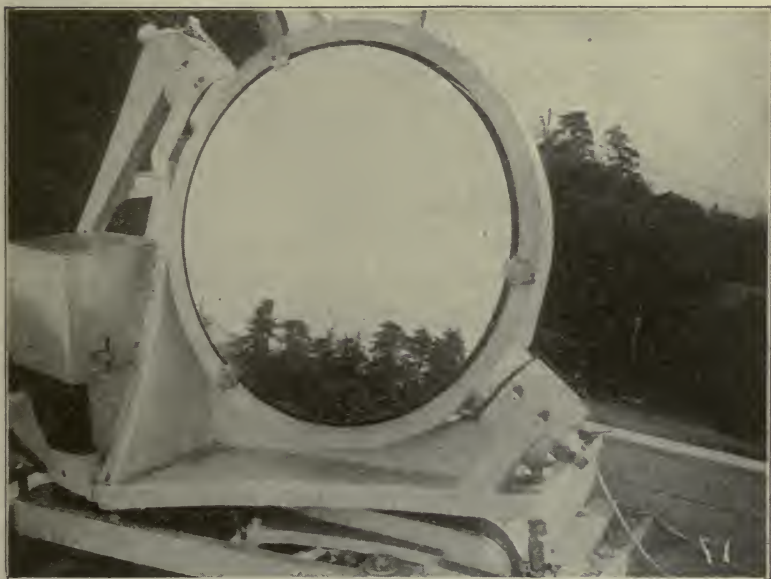
And in the moonlight, now, the valley is filled with new beauties, not the least of which is the distant illuminated city.

THE MOUNT WILSON OBSERVATORY

The observatory on Mount Wilson was established as a branch of the great Carnegie Institute of Washington, D. C., because of the remarkable advantages the climate conditions of Southern California afford for astronomical work. In cold countries it is exceedingly difficult for astronomers to do their work, as the presence of artificial heat in the observatories causes heat-waves to rise which destroy the images of the celestial objects that are seen through the telescopes. At Williams Bay, Wisconsin, for instance, where the great Yerkes Telescope of the Chicago University is located, the astronomers, during the winter nights, have to wear double suits of clothes and underclothing, with heavy overcoats and extra shoes of felt to protect the feet and legs in order to withstand the cold. While the nights sometimes get quite cold on Mount Wilson, there is never any severe difficulty on this account, and consequently it is an ideal spot, as far as the comfort of the astronomers is concerned. But in addition to this, the atmosphere itself is so clear and so free from any kind of disturbance that would affect the sharp definition of the objects gazed at through the telescope that it is ideal from the standpoint of scientific observation. The close proximity of the desert on one side of the mountains and the ocean on the other seems to produce a suitable equilibrium of the air that is highly advantageous to astronomical observations. The result is that more good work has already been accomplished in certain lines in this observatory and that of Mount Lowe than at any other observatory in the world. More will be done

when all the instruments that are ultimately to be placed on Mount Wilson are in position.

The negatives are then developed, and we are shown a number of these glass plates, the round image much like a great fog spot in the center with a sort of crusty, skin-like effect due to clouds passing over the surface.



MIRROR AT MT. WILSON OBSERVATORY

These photographs are almost more than instantaneous, they are taken in just one one-thousandth part of a second.

After we have finished viewing the sun through these great finely-polished mirrors, we step into the laboratories, built of solid concrete, to see the innumerable instruments for calculating changes between pictures.

So constantly is the sun changing that no two pictures obtained are ever absolutely alike.

We next visit the homes of the professors, a series of neat little offices and bed-rooms built in the mission style on the mountain-top, with their windows opening into the tree-tops as did our own room at Rila Monastery, when we made the *Little Journey to the Balkans*.

Here we look over a number of photographs of stars, and are told of the different instruments required to make them. Much of this information, however, is well "over our heads" and we beg to be excused.

In fact, the whole matter of photographing objects ninety millions of miles away is altogether too big a project for young brains such as ours, especially as we are looking forward to our ride back on the donkeys.

We leave at noon and experience some difficulty in getting the mules past the stable. At last, however, we are off, and enjoy the down trip throughout. It is twenty minutes past four by the time we reach the foot of the trail, and as we found on our *Little Journey through Spain*, where we took our donkeys into the Pyrenees, it is not without regret that we part with the animals.

Back at Los Angeles from our trip to the mountain-tops, we prepare at once for a voyage to inspect the bottom of the sea.

A TRIP ON THE PACIFIC

FOR today we have in prospect as delightful a trip as any on our entire journey. We are bound for the Santa Catalina Island, an island autocracy out in the Pacific that is world-famous for its remark-

ably clear channels and straits, where by means of glass-bottomed boats the entire sea-bottom is visible.

From circulars we learn that the largest of these islands is about twenty-two miles long, and has an area of some four thousand seven hundred acres.

Of course it is important to know how to get there. We take a traction car in Los Angeles for San Pedro (Peé-dro), from which the islands lie twenty-two miles out to sea. San Pedro is now, in reality, a part of Los Angeles. The U. S. Government is spending millions to make a great harbor, and in order that it might be controlled by Los Angeles, a strip of land reaching from that city to and including San Pedro has been absorbed. Hence it is now Los Angeles all the way to the ocean.



AVALON

Here we see in profusion boats laden with lumber, schooners and other vessels engaged in the Pacific coast trade. Gulls wheeling about mark the lobster landing, which recalls our New England *Little Journey*.

We soon board a steamer for Santa Catalina and for our first voyage on the Pacific.

All of our geography rises before us, as though to make us regret we did not study harder at school. Who discovered the Pacific, and when, and under whose flag did he sail? How many square miles of water are there in this ocean? Do we remember how to bound it, and can we tell what degrees of latitude it embraces? If not we shall have plenty of time to look up these points in our pocket atlases as we sail island-ward, and this will do us far more good than to have it told to us.

In fact, once we have left the break-water, stretching out from the dull green hills behind, and the trees have faded into mist over on our right and left, while the smell of the sea is strong and bracing, we are glad of something to do. We do not want to listen to the foolish people who are afraid of sea-sickness even on a sea as smooth as this. When we get out on the open ocean there is nothing on the smooth surface to see save an occasional four-master, weighted way down with freight; and aside from counting buoys and looking out for the Santa Monica wharf, the longest pier in the world, we have nothing to do but to lounge and idle, watch for flying-fish, and enjoy the healthful rest of a sunny day at sea.

By and by, far ahead, some green mountainous cones, with patches of yellow, rise from the waters to mark our

destination, the Island of Santa Catalina.

Before we arrive, however, we are treated to the sight of a school of porpoises. There seems to be twenty or thirty of them, and they move indolently and carelessly along, occasionally shooting out of the water in a peculiar curving fashion that is most interesting to witness.

At last we land at the wharf. As we walk from it we find one main street which faces the little Bay of Avalon. At one end is a fine hotel, at which we are to stay; at the other, an open air theatre, where band concerts are given every evening during the season.

THE FAUNA OF THE PACIFIC

WE FIND the glass-bottomed steamers the first point of interest to the sight-seers. As most of these visitors remain today only, these are crowded to the guards. We, however, are to stay until we have seen all there is to be seen, so take our way to other places first.

Not far from the wharf is the aquarium, where we can find the fauna of the Pacific unfolded to us through the medium of glass tanks. For those of us who have visited the aquarium in New York, the comparison will be most interesting. On a series of trellises, to begin with, there are small glass globe aquariums, where all manner of curiosities are housed.

First in interest, perhaps, is the trigger-fish. This is shaped like a flounder; its color is dull brown; and there is no known reason for the name it bears. Then there is a sheep's-head which weighs some eighteen pounds, and lives in the same case with a turtle, in a sort of happy family way, for the turtle never snaps at the fish, nor does the fish attempt to annoy the turtle. Here too is the squid, which darts



THE GULLS

its ink out to protect itself from the foe by hiding its exact whereabouts, and also the *ramora*, which gets upon whales and sharks, and virtually sucks the life blood from them.

Still more interesting is the transparent clam, which is taken from a depth of seven hundred feet beneath the surface, and which inhabits the beautiful roseate shells we found at Santa Monica. It appears that it is impossible to obtain the proper food for these clams in captivity and therefore they die shortly after being taken. Growing coral, and dead coral with the moss growing on it, moss filled with red anemones like flowers in bloom, and pale little yellow growing sponges. all are here. Then, too, there are sea-hares, which re-

semble a huge shell-less snail, climbing about the walls of its case, and causing us to wonder whether it may be the far-distant ancestor of our modern garden-snail. On the back of these hares there is a beautiful fold of skin which opens and closes as we watch it, while the little animal feeds on a great bunch of seaweed in its compartment. Now and then, when alarmed, these chocolate-red animals curl up for defense and drop like a stone from wherever they may be. At other times some of the red ink with which they are filled is visible beneath a rock and discloses their presence.

An octopus, or devil-fish, of which specimens fifty feet in length are sometimes seen, is another attraction of this aquarium. These animals grow very slowly, but are very long-lived, and just how ancient may be the sleepy fellow whose long tentacles with their thousand feelers we see against the sides of the glass no one seems to know.

These, however, are but a few of the wonders of the aquarium. There are sharks' eggs, like a piece of India rubber, or the seed of the thorn-tree, which take ninety days to hatch, and there are conger eels four feet in length, with nostrils that resemble a circular bit of bored lead, while their eyes are sunk deep, quite out of sight in open sockets; lobsters and craw-fish, masses of claws and feelers, pretty red-eyed star-fish, sea-cucumbers, which mark the line between animal and vegetable life, the "stingaree," noted for its long "stinger" tail, and beautiful golden perch, like a great gold-fish but broader, and of a magnificent reddish-golden shade—these are all on exhibition. - We must, however, also make a point of seeing the goat fish, a

tiny white fellow, the exact shape of a goat, and then the gold electric-fish, whose spots become phosphorescent at night.

MOUNTING MOONSTONES

WE NOW wander on through quaint, interesting Avalon itself. We stop to note in the window of one of the chop-houses a square aquarium tank in which is a beautiful fish, with a red center-band across its black body, sporting among some abalone shells. Inside, if we wish, we may have a fish dinner for a quarter.

Then we come on another typically sea-side industry, the polishing of moonstones from the Moon Beach to which we shall come later. These are not the real moonstones of the jewelers' shops, but agate or chalcedony formations, some of which bear a curious moss formation, resembling the moss-agate. The stones are found as pebbles, much like the lucky-stones we may find in Michigan on another *Little Journey*, greyish white, and ranging from the size of a pea to that of a fist. The average weight of these stones, as found, is thirty carats, and such a pebble is ground down in these shops to perhaps three, in order to be fit for setting in rings and stick pins. Now and then, some of these stones will be of lavender or of amethyst hue, and then they bring as much as five or even ten dollars. Commoner sorts, when clear, retail at fifty cents.

We enjoy the cutting of moonstones; it reminds us of the diamond cutters of Amsterdam we met on our Dutch *Little Journey*. The pebbles are inserted in engineer's wax at the end of a stick, and then cut by hand until ready for the carborundum wheel with

which they are finished. They require from twenty minutes to an hour and a half of grinding, but there is a set price of half a dollar for the work.

DOWN TO THE BOTTOM OF THE SEA

WE HAVE come to Avalon, however, to have a look, like McGinty, at the bottom of the sea, and we will not be put off any longer. What Jules Verne has written in his "Twenty Thousand Leagues Under the Sea" and his "Mysterious Island," and what we recall of "Among the Florida Reefs" and other books make us eager for this excursion.

We go aboard the glass-bottomed tug, a regular steamer, in whose bottom, in either end, are set a number of large panes of glass, about which a black painted railing rises. Over this we and the other tourists aboard lean, from our benches, to look into the water below. The seals disport about us on the pebbly beach as we leave, but our eyes are soon glued to the green water with the moss drifting over the pebbles, and we forget all about the land.

Almost at once the bottom begins to descend beneath us, and the beautiful scenery of the ocean bed, of which we have long heard so much, unrolls below.

Here and there are black spots on this bottom, marking clusters of seaweeds in the depths. Then there is the skeleton of a fish to attract our attention. At another moment the water bubbles like seltzer beneath that pane of glass, and while we are waiting for it to clear we think of Verne and his "Mysterious Island," and admire the inventiveness of the author's brain which could imagine romance so close to truth.

We turn again to admire the ocean bottom, where we see abalone shells filled with sand. The water is now growing deeper and more blue, and from an old board some great ropes rise up to support a buoy. They are overgrown with moss, like some phantom vessel's moorings. Ever bluer, ever deeper and ever more smooth becomes the bottom. In the glass we now see "mermaids and mermen," as the little guide fantastically calls them; these are our own reflections, of course. Then little black fish go by, darting away into the distance.

By and by we sail over great stalks of the iodine kelp, an enormous plant like a great tobacco stalk, with green membranous leaves, some of them about a foot in length and three inches across at their broadest part. To these leaves nature has added little air-sacks, that keep the plant up. These leaves are gathered and dried for the iodine they contain. Most of the kelp forests have a little parasite that eats the plant to a string, as we see in a few moments. In among these great green kelp forests rock-bass, beautiful blue fish, are disporting themselves, and in among them there are countless hundreds of golden perch, which live on the sea moss. So varied are the objects of interest that we never tire of the picture. In and out of the iodine gardens these blue fishes and gold ones make their way. Here and there what seems a worm about six inches long, is noted on the rocks; it is in reality the sea-cucumber, such as we saw in the aquarium above, and the lowest known form of genuine animal life. Then too there are sponge-like masses, a sponge moss, also a very low form of life. Pink and

lavender coral mosses, a brown moss blooming three times a year—these and other varieties add their beauty to the prospect. Then suddenly out of the crevices of great rocks where the blooming sea-urchin lives in profusion dart sheep's-head fish, with teeth like those of a human being.

We skim over some mighty rocks jumbled here in great confusion, and wonder why it is that their crevices have not long since become filled with sand. Out of these crevices again rises the iodine weed, and smaller weeds like the sweet-fern of our middle western turn-pikes are dense. Dense as are the weeds, just so dense are the gold-fish. In places the kelp is right under us, and also the fishes. Everywhere too is a black fish with two white spots on its back; it is the black perch.

The water becomes clearer, and is filled with the sponge moss. Then more iodine weed comes in sight, this eaten away to long threads, then more shells. Among the latter an enormous blue-fish is dawdling, while smaller gold and azure varieties disport themselves around.

The water is so clear that we scarcely realize that the ocean bed on which we look is a hundred and twenty-five feet below us. In Florida a spy-box, a glass at the end of a square boxlet, is lowered from the sides of a boat, that one may see, as those of us who took the *Little Journey through the Old South* will recall; but no such depth of bottom is there attained. Nor is the sea so delightfully pale blue; nor do we find there the thousands of blue-fish, their little tails all in line, nor the iodine kelp rising up, sometimes to a height of seventy-five feet, in huge ropes.

From thousands these blue finny fellows turn to millions; in fact, we should not have believed it possible there could be so many. When the iodine masses beneath the glass pane do not obstruct our view, we cannot begin to count them; there seems to be a depth of seventy-odd feet of fish to the spotted rocks and the moss below.

By and by, a little brown fellow, a vegetarian, which keeps at play near the bottom—the kelp fish, he is called—puts in his appearance. The guide calls our attention to other wonders of the ocean. When we rest our necks from craning, above the glass we see only the leaden blue ocean. Then again we watch the “Garibaldi,” or yellow perch, in the forests of sea fern, and the great white open clam-shells on a submarine mountain.

At one place we cross a sargasso sea, a sort of submarine pampas, where starfish are numerous in the white sands, and there are masses of seaweed, grassy in form, growing from the bottom. These have a bluish tinge, and are very fine and feathery, especially as they wave in the currents. Here and there a large cockle’s shell, or a beautiful upturned abalone, makes us wish we could ramble where our eyes now explore, and gather all that we see.

At one time our attention is drawn to the mainland to see a wild mountain-goat, scaling the bleak rocky crags, and looking down at us saucily. Curious lateral lines in the sands on the bottom produced in reality by the currents are the work of “mermaids plowing” according to the little guide.

To tell everything we see, the mermaids’ hair, sea-

weed which its name describes, the kelp that has no air balls, but a strong stalk instead to keep it up in the waves, the skates on the bottom and the other strange forms, would be impossible in these pages.

By and by, we discern the next island, San Clemente, twenty-eight miles off to sea, whose sole inhabitants are sheep-herders, and then we round in and come to the seal rocks, where is to be seen perhaps the finest herd of free seals in the world, next to the famous one of San Francisco, accessible to the ordinary tourist. We see seals everywhere on the rocks, the little cubs often lying on their mothers' backs, or some old one moving sluggishly to where the countless gulls hover. There are light brown, grey and even black seals here, in all the freedom of other and wilder seas. We stop a while to watch them and listen to their whimperings, and then return a bit more rapidly than we came, over the submarine gardens.

AN ISLAND AUTOCRACY

It is a quarter to five when we reach Avalon once more. We saunter about the quaint little island town, with its shaded cottages and its street overhung by the eucalyptus trees. We visit the sites for the tents of the summer city, and see many of the great blooming geranium trees.

Then we drop into the offices of the island autocracy, to learn something of its government. Probably in our early childhood we wished we could buy an island somewhere and be king or queen. That is just about what has been done at Avalon. About fifteen years ago the Company purchased this island, and practically

rules it as might some Czar. No ship may land here except that of the Company. No stores may be opened except of the sort the Company desires. The boats refuse to carry supplies the Company does not desire, so that rival hotels are impossible. In fact, were there a despot ruling over Avalon the situation would not be very different.

We learn interesting facts about the island. For instance, we hear that at one time there was a mining boom, gold and silver having been found in Cherry Valley. There is also splendid wild goat hunting in the interior.

HUNTING WILD GOATS

IN FACT, we ourselves join one of the parties which are constantly being formed and go on such a hunt. Guides and horses are obtained and we ride to that side of the island where the wild goats are most numerous. There, with a thirty-three round Winchester gun, we try our skill. The desire of each hunter is, of course, to obtain the head of an animal, which is mounted by the sportsman.

We also visit the enormous sheep-pastures in the interior of the island, which remind those of us who made the *Little Journey to Australia* of the great sheep ranges of New Zealand. At one place there are some twenty thousand domestic sheep in the enclosures.

Then, too, there are fig orchards, where the fruit ripens in July, and this has a peculiar flavor not to be obtained on the mainland, and banana trees also are there to demonstrate that we are in the South.

It is nearly supper time now and so we return to the hotel. We must hurry through our meal, since it is

Saturday evening, so that we may be down at the dock and witness the fireworks with which the incoming boat is greeted. After this there is dancing and card playing and the like, in which some of us join.

Those of us who are too timid or do not find such recreation to our taste, indulge in the island literature, and learn how this island was discovered by Juan Rodriguez Cabrillo, in September, 1542, how on this island of forty thousand acres there is a peak two thousand five hundred feet high, and how, way back in the Stone Age, man was an inhabitant of the islands. How did he come those weary miles from the mainland? What manner of boat or raft did he build? Indians, too, were here later. What did their canoes resemble? It is interesting to speculate on these problems.

Then, to bed, to rest for another day of sight-seeing on the island.

FISHING FOR THE LEAPING TUNA

RISING early the next morning, down in the lobby of the hotel we pick up the "Records of the Ananias Society, composed principally of Eastern liars," which gives the records of supposed tuna catches from 1894 on.

This naturally leads us to inquire into tuna-fishing, for which these islands are as famous as is Nantucket for its blue-fish, and perhaps to arrange for a fishing excursion.

The tuna, we learn, is the largest of the bony-fishes. In the Atlantic, specimens are occasionally harpooned which weigh fifteen hundred pounds. The tuna is a fish of wide range, being found in the warm temperature of practically all seas. This, however, is about the



ON THE WHARF AT AVALON

only place where it comes in shore in numbers, and is caught with rod and reel. The common name then is the "tunny" or "horse-mackerel" of the New England fishermen.

The tuna of the Catalina waters differs from those found elsewhere in its great leaping powers. These are developed in its pursuit of its natural prey, the California flying-fish. To catch them it makes great leaps out of the water. This gave its distinctive name of the leaping tuna.

The tuna here is taken with rod and reel and a regular club has been organized. The rules of this association are interesting. Any one who has caught a tuna with rod and reel, in California waters, which

weighs over a hundred pounds, and had such catch properly registered, is eligible. The member catching the fish weighing most is president and holds office until his record is exceeded. The member catching the greatest number of tunas in any calendar year, regardless of weight (the average here is about one hundred and eighty-three pounds), is vice-president and likewise holds office until his score is beaten by some other member.

For breakfast this morning we get a typical California island meal, beginning with navel oranges. Then follow clam bouillon, grape-fruit and honey from the Simi Valley (to be visited later) or fig-jam from the island itself. After that comes shredded codfish, or fried red rock cod, or "yellow-tail," or broiled salt mackerel.

MOONSTONE HUNTING

THIS MORNING we will indulge in another submarine outing, into a different section of the sargasso seas. Again aboard one of the glass-bottomed boats, we go out among the rugged rocks, where the water is perhaps forty-five feet deep and of green blue. Then the wonders begin again, much as we saw them yesterday—the sea-cucumbers in the sand, the great white rocks, and the golden perch in the iodine weeds, while a light blue moss-like sea-violet, which loses its color as soon as it strikes the air, is a new curiosity. The trip is much like our previous one, except that we skirt closer in to shore, where the lambs are visible on the slopes of the mountains and where great rock masses hide from view the old boat hospital anchored in a picturesque cove. Some black diving birds, a crane or two, and

then the blue bass, with the two white spots on their backs, are the principal novelties encountered. By and by our attention is drawn to a seal, one of the local herd for whose protection fines ranging from twenty to two hundred dollars have been instituted, these especially providing for the protection of the one or two pups which



HUNTING MOONSTONES AT CATALINA

accompany each mother seal in June, when she teaches them to swim on the coast here, to the delight of passers-by; the little pups are at first absolutely helpless in the water. Now gulls and cormorants and pelicans are pointed out, and we make a turn to one side to carry the mail to a queer old hermit who lives here on the beach because he is afflicted with some nervous

trouble. He takes his letters in a bag at the end of a long pole fitted to his skiff.

Finally we land at the moonstone beach, five miles from Avalon, where, at the foot of the mountains, along the narrow gravelly areas that the water occasionally washes, every one searches for the pebbles, or for the rarer moss-agates. Then, too, one can climb over the boulders to a cave or to the top of a peak to take pictures, or else dislodge sea-urchins and rock oysters. A few of us go in wading in our search for the moonstones. There is no lack of pastimes.

Some of us listen to the old boat-captain as he tells of an island about twenty-eight miles off San Pedro, where the gulls nest; the island being one great rock rising from the sea, on which the nests are so dense as to be less than a foot apart, just enough room for one brood not to interfere with another. These nests are of seaweed and grass set right on the rock, and about ten inches across. From two to five eggs are laid in them, and on warm days these are left alone much of the time.

We also hear stories of sharks occasionally seen in these waters. Now it is time to return.

On the way Mt. Black Jack, two thousand five hundred and fifty feet high, is pointed out to us on the island. We now find the blue sea full of inch-long transparent white fish, tails all in line, some wiggling both tail and fins, others motionless save for a gradual drifting in one given direction. They are thick as snow in a December snow-storm.

Returning for luncheon, we idle away some time with the seals on the beach, which come right out of the

water at Avalon to take the fish thrown them. Tame as they are, the big fellows, headed by their leader "Old Ben," fight among themselves while scores of gulls wheel in and about to seize the shreds of fish torn free by the sea lions.

The steamer for the mainland does not leave until half-past three, so we have plenty of time to make



SEALS AT AVALON

again the submarine excursion of yesterday, and get some additional photographs of the coast; the camera unfortunately cannot take the effects seen through the glass bottom. Then with a lantern made of a dried star-fish, and other souvenirs, we are ready to bid this fascinating island adieu.

COTTAGE LIFE ALONG THE PACIFIC AT OCEAN PARK

ON THE way back to Los Angeles we make the acquaintance of some people who have a summer cottage at Ocean Park, which is, as we remember, practically a suburb of Santa Monica.

They invite us to take tea with them, and we get a taste of regular sea-side cottage life. The cottages,



COTTAGE LIFE

which have a neat hall leading to the dining-room at the back, and several bed-rooms upstairs, can be rented furnished, for the season. Women are then hired to cook and keep house and the expense of hotel life is saved, while most, if not all, of its pleasures can be enjoyed. The supper, with its home cooking and the

glimpse of family life, is refreshing to us, furnishing a little variety in our journey.

VENICE IN CALIFORNIA

AFTER supper we take the cars for Venice, the great amusement resort on the Pacific, erected in imitation of the glorious Italian city. Every building is now illuminated with glaring yellow electric lights, there are booths and shows and restaurants. Standing out against the night sky, outlined in lights, is a café, in the form of a caravel.

Crowds surge everywhere. The destination of most of them, however, is the palm garden, where there are *loges* and orchestra seats and a stage, and where an orchestra dispenses popular music, while, as at the cafés of Fiume, the populace enjoys light refreshments.

Although the round trip from Los Angeles costs only fifty cents, we find the crowd is a most refined one, and we enjoy our evening heartily.

Of course a night visit to Venice, whether it be the Venice we visited on the *Little Journey to Italy* or Venice in California, does not content us, and next morning we decide that we may as well see all that is to be seen in this place before passing to any other, and so we again take traction for Venice.

At the entrance to the main avenue of the city we see a building which reproduces very faithfully the architecture and coloring of its Italian model. It is of a brown and yellow stucco, and contains, besides a substantial bank, offices of real estate agents on the ground floor, while up above are those of a doctor and a notary.



SHIP HOTEL AT VENICE

The street itself from this point is of asphalt, broad and lined with pillars of yellow imitation marble surmounted by great bronze capitals. Behind these pillars there are curio stores where abalone shells, spoons of the same, pins and tidies are for sale. Then there are parlors for pool, a game of which people are very fond out here, and hotels, bowling alleys, popcorn and peanut stands, all seemingly brand new, for Venice has been in existence a single year only; but for the absence of crowds and the calls of barkers, one would fancy it to be simply a temporary carnival city, instead of a substantial town.

As a matter of fact, however, Venice is little more than a dream city, so far as its conception goes. A

gentleman of Richmond, Virginia, Kinney by name, having bought real estate in Los Angeles, twelve miles away, and becoming infatuated with this site, resolved to lay out a Venetian city, and has already expended not less than a million and a half dollars in the venture. To begin with, he purchased about five hundred and sixty acres for his site. Then he built three miles of canals, a wharf, auditorium, and ship-hotel, as well as another great hotel patterned after St. Mark's Cathedral in old Venice of the Adriatic. A mammoth breakwater was added; streets, too, were laid out, and the pillars for the arcades of future buildings were erected.

Then lots were offered for sale, under certain conditions—among others that there must be a Venetian arch along the street, and arcaded walls, as well as marbleized columns, while the roads must at all times be in line with those of the neighbors.

We step first into the Bank of Venice to admire the frieze, a series of panels of Venetian life, in heavy blue effects. Then we peep in at the handsome bowling alley across the way, where walls of red, relieved by heavy imitation ebony, scarlet carpeting and deep brown leather wall seats give an air of richness to the whole.

From here we pass on to the European and Oriental Exposition, where Aladdin's lamp seems to have been rubbed to supply wonders for this Venice of the Pacific. Great Japanese booths are everywhere, and we may purchase any number of oddities. There are purses of red or blue silk, or of leather, in green and yellow design; queer, crude china figures of men and women,

and heavy brass egg-shaped cups and the like, as well as pictures in India ink which sadly tempt our purses. We cannot resist purchasing some of the tiny lockets of bone, containing five dice, each one perfect and yet each no larger than a good sized pin-head.

Continuing up the pier, we come to another shop, where an ingenious man has learned how to make ornaments out of seaweed. Just how this is done is a secret. The windows are filled with curious little brown and white figures, principally brownies, with white bands about their heads, and high collars, standing on small ornamental platforms. For these we learn the bull-kelp species of seaweed alone is used—this having a great air-ball on the top, and the string being probably forty to fifty feet long. The plant is gathered green, and the kelp prepared, for perhaps three to four months, by a secret process, before ready for use. Then black, green, and cream or yellow kelp are worked together for the desired effects. Ladies' hats are made of it, which cannot be hurt by the rain. Belts, resembling rattlesnake skin, and even tiny tea-pots and the like, are formed of this elastic material.

Retracing our steps from this pier, we can either indulge in the swings on the beach, or the carousal, or drop into one of the bath-houses for a plunge in the brine. Here, too, we meet the Venice barker, a tall negro in a sailor suit, calling for this show or that. Then we come to another bathing pavilion, built in truly Venetian style. The bath-rooms on the second and third floors are each surrounded by verandas, and these are enclosed by imitation yellow marble columns, rising to an open-work roof.

Now we are on the Midway. Here we find an expert checker player willing to play with anyone at ten cents a game, and keeping up games with five different persons at once. There are also German *frankfurter* stands, Japanese ping-pong tables, and the usual shows, such as the doll-woman, darkness and dawn, the house of mirth (where the barker is dressed like a gorilla), a chicken farm where you try to hit the chickens with a soft ball, and so on. A working mine, and an oriental theater, palmists and cafés are also here. One barker, however, interests us greatly, for he is a ventriloquist of first-rate ability. He carries a doll in his arms, and it is difficult to realize that it is not the doll but his own voice answering his different questions, for his lips are closed, while those of the doll are moved by means of hidden springs.

This part of Venice is a pleasure resort, and the management is constantly on the lookout for changes in the style of amusement so that the fun-loving crowds of Los Angeles will get into the habit of coming here.

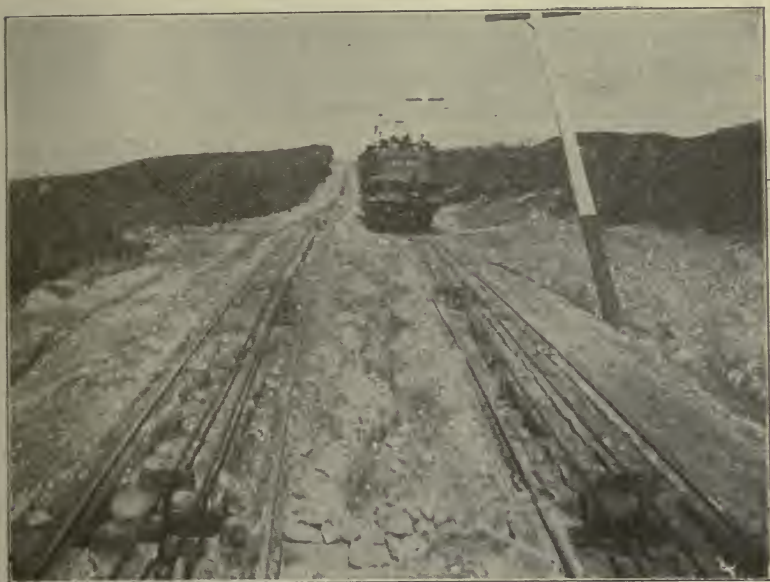
When evening approaches we are rather tired, and glad to beat a retreat back to Los Angeles.

UP ANOTHER MOUNTAIN PEAK

OUR next trip is to be from the sea-level skyward again, this time on a route that no tourist omits,—the traction up Mt. Lowe. We go by street car from Los Angeles direct, and as part of the route has been covered before, on the way we read a little booklet descriptive of the mountain.

We find that the bald top of Mt. Lowe (Lo) stands six thousand one hundred feet above sea level, and

that the Alpine Tavern at the end of the electric railway is eleven hundred feet below this summit. The real grade of the trip begins at sixty feet to the hundred, and on its greatest steeps we rise sixty-two feet in every hundred. Statistics are usually uninteresting, but here we are glad to learn that the incline up Mt. Echo has a length of five thousand feet,



ASCENDING MT. LOWE

while the direct height is fourteen hundred feet; we also scan the table of heights of other peaks—Mt. Washington's ascent three miles in length; that of Pilatus, which we made on our *Little Journey to Switzerland*, likewise three; up the Schynige Platte the ride is four miles and a third; while up the Rigi Vitznau it is four and a half miles; at Monte Generosa

it is five miles and a half; the trip up Pike's Peak is eight miles and a half. From Los Angeles to the Alpine Tavern on Mt. Lowe is exactly twenty-five miles, of which eight are mountain-riding.

While we are journeying towards the mountains, a friend gives us the history of the building of this railway. It was the project of D. J. Macpherson who interested Professor T. S. C. Lowe who had recently moved from the East to make his permanent home in Pasadena. Professor Lowe was born at Jefferson Mills, now known as Riverton, in New Hampshire. Though poor, he was a great student and full of laudable ambition. He studied chemistry as a young man, and then for several years made ascensions in a balloon for the purpose of studying the currents of the upper atmosphere, so that thereby he could further the interests, not only of science but of commerce, by operating airships to and fro across the Atlantic Ocean. In April, 1861, he sailed in a balloon from Cincinnati, Ohio, to the Atlantic Coast in South Carolina, 800 miles, in nine hours. When the Civil War broke out, he proffered his services to President Lincoln for the purpose of organizing an aeronautic corps for the United States Army, with which he proposed to watch the operations of the enemy in the field.

After the close of the war, he interested himself in scientific discovery, inventing and perfecting the ice machine, the refrigerator-steamship and new processes of making illuminating and heating gas. With the fortune he had accumulated he removed to Pasadena, and there engaged in the construction of this unique railway to soar above the clouds.

UP IN A MOUNTAIN-CLIMBER

THIS car consists of three tiers of two benches each, each bench seating five persons. The car stands in a nook surrounded by the forest-covered mountains, where the bubbling of a brook is audible from below.

We look up at the steep incline and are surprised to find only three rails, although we are told that there is one car to ascend and one to descend. At first we cannot understand how it is possible for two cars to run on three rails, until we dimly discern, what appears to be nearly at the top of the incline, a turn-out, where there are four tracks, two for the ascending car and two for the descending one. Of course we expect that these turn-outs will be manipulated by a switch as on the ordinary railways, but we find this is not the case. By an ingenious contrivance of Professor Lowe's the middle rail is simply split, as it were, and the ascending car turns to the left and the descending car turns to the right as they meet at this center point of the incline.

When we arrive at the top we are much interested in watching the operation of the machinery that raises and lowers the cars on the Incline. It is run by electricity which moves a monster iron wheel called a grip sheave, placed in a slopingly horizontal position, the outer rim of which is composed of seventy steel jaws. As this wheel revolves the cable is seized by these jaws, which automatically release the cable after a half revolution has been made. The whole machinery is so wonderfully contrived and delicately balanced that if any accident were to happen to the operator, and the descending car were to go even the slightest degree

quicker than it should, the whole machinery would stop and the cars be brought to a standstill. After nearly twenty years of operation, there has never been an accident, and while it appears to be the most dangerous railway in the world, in actual experience it has proven to be the safest.

On the roof of the power house is located the monster Search Light that was operated at the Chicago World's Fair. It was purchased by Professor Lowe for the purpose of studying the clouds and upper air currents. Every night its gigantic beam of light of 3,000,000 candle power is shot down into the towns and cities at even a distance of twenty to thirty miles. The sailors sometimes come into the harbor and report that they distinctly saw its light at a distance of sixty miles.

We see on Echo Mountain the ruins of a large and fine hotel that was destroyed by fire some years ago. It is now promised that it will soon be rebuilt. A cannon is fired on the other side of the narrow mountain top and we hear, in the reverberating echoes, many times repeated, why this is called Echo Mountain.

We then take our seats in an ordinary electric car which whirls us rapidly to the heights above, around the wonderful Circular Bridge, through Granite Gate to Alpine Tavern, 5,000 feet above the level of the sea. This is a delightful ride around swinging curves, on elevated granite shelves, and looking down into profound canyon depths.

A BIT OF TRANSPLANTED SWITZERLAND

THIS part of Mt. Lowe is like a bit of Switzerland transplanted to the far West. The tavern is built like a Swiss chalet,—its upper story of light yellow

wood. In the reception room a great log fire burns upon heavy andirons, and to right and left of it huge logs are piled. A kettle swings over the fire, upon its crane, as in Whittier's "Snow-bound." A great wooden chimney-piece reaches to the ceiling, and above it the words "*Ye Ornament of the House is ye Gueste who Doth frequent it!*" are inscribed in Old English letters.

Of course our appetite impels us at once to dine, after which we start on a walk to the top of Mt. Lowe. We might hire a burro for this purpose, but prefer stretching our rather stiff limbs, and so take to the poor man's carriage and start at precisely 12:39.

THE WALK TO THE TOP

A STEEP, gravelly trail leads through the brown earth-bank and among tangles of oak, so that it is often hard to find the way. We see only an olive-like brown-stalked shrub, pin-oaks, wet with the fog, and pines that sing and sough. Here and there, there are little points of attraction, of which the Rainbow Springs is one. Then, too, one can stop to feed the very tame grey squirrels of which the trees are full.

By and by, however, we find that we are in the very heart of the mountains. Chain on chain of granite peaks, looking like white or pink marble, rise out of the forests of oak. At the edges of these cliffs there are jumbled masses of scrub and rock. We get a brief view and then the fogs fall and all is hidden, and, as on our ascent of the Meeraugerspitze in our *Little Journey to Hungary*, we are soon walking on the brink of what seems like a bottomless abyss. By

half-past one it begins to pour, so we have to turn back and run for cover.

TRAVELERS' TRIALS

HERE becomes apparent the difference between genuine sight-seers and tourists. The sight-seer comes to *see*. If today he cannot go up the mountain he stays until tomorrow, or the next day. For, argues he, what is the good of going farther without having seen what is before us? The tourist, however, is content to let the top of Mt. Lowe pass unvisited and takes the next car back.

Hardly are we safe at the tavern before it begins to hail on the mountain. The hail is sharp and fine and sticks deep in places. It is cozy at the windows now, listening to the beating of the hail-stones on the pane and the crackle of the logs here within.

Meantime we hear people talking of the mountain. Some one tells how originally an Alpine club had a hostelry here, and how even now in the forest, which is a government timber reservation, deer and black bear are found. Probably we shall meet the chief ranger of the forest, and each such ranger, we learn, has to watch over some ten thousand acres. His principal precaution is against forest fires and when these are detected he telephones to other rangers to come to his help. Hunters with guns are excluded, unless provided with permits for rifle-hunting, which can be obtained. These rangers have an interesting time among themselves; but their life is a lonely one, for they live in camps, six men to a camp, and each camp is eight miles from the next. There in the

log-cabin or the shake-roof tent, they tell stories or play cards when off duty.

Another carload of people comes up and in, wet from the trip. They dry off before the sweet, balsam-breathing logs, while mountain tales are recounted. At half-past four, however, there is a noticeable clearing out of the tourists, for the last down-car leaves then and only those remaining over night will be left.

The sun has by this time come out again, and we once more make the climb to the top. An electric railway to this summit is projected, we are told, so we wish to go in pioneer fashion while we may. We find now that holly bushes and *mazanita* make their appearance beyond the point where the hail-storm routed us, and while the thunder rumbles on other mountains, we scale a narrow rocky trail, zig-zagging ever below us as we ascend, to points where the valley is unfolded in all its beauty. Our hearts are pumping with the altitude as much as with the climb, and so we stop to rest a moment on the rock, while some one recalls Professor Lowe who projected the car route on the peak.

At one place on the forest climb we pass through a grove of fine oaks, and to these we find every passer-by has hung his visiting card. So we add our cards.

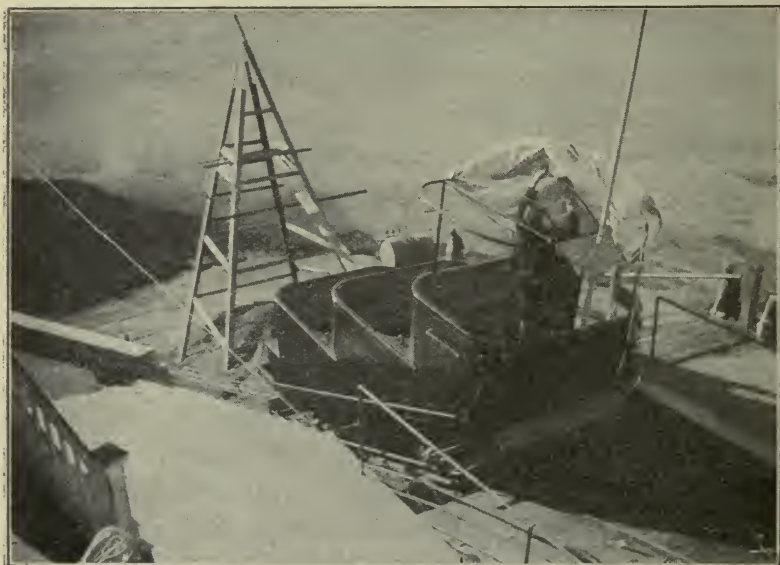
After a considerable journey, we are on the *very* top, an open area with some old barren trees, and a flag-staff minus Old Glory. It is now 5:10 P. M. and our pedometer shows that here we enter on the third hundred miles of *walking* we have done on this trip. Down mountain is always faster than up, and at five minutes to six we are back at the tavern.

At supper we gather round the log fire to enjoy its warmth, and then, in the evening, at the two tables in the sitting-room young and old indulge in various games, while a great fire sings its accompaniment.

THE OTHER SIDE OF THE TRIP

THE next morning, of course, we want to descend from Mt. Lowe. The day is gorgeous and everything assumes so different an aspect as to make it appear almost a different excursion. We are awakened at six by a hand-bell, while it is still so dark here above the clouds that we need the electric light to see to dress.

After breakfast we find that only our party is to go down in the first car, which leaves at half-past



READY TO DESCEND MT. LOWE

eight, so we have the car to ourselves. As far as Echo Mountain the journey is the same as yesterday, of course, but when we arrive here we now stop off, to visit Lowe Observatory, maintained by the car company, that, on two nights of the week, tourists may come and view the simpler wonders of the heavens under the guidance of Prof. Larkin, one of the great comet discoverers of our country. Formerly Prof. Swift, whose specialty also was comets, and who was world-renowned, was here, remaining in charge, in fact, until his eyesight failed him, and he removed to Marathon, N. Y.

We enjoy the ride down immensely. The sky is a beautiful blue and we can see chain on chain of mountains unfold as we descend. Looking through the shrubbery and the tall pines, we peer into canyons completely clothed with verdure, and then beyond to the valley with the great flat city, where the white steam-curled from trains rise skyward at intervals. Beyond the city are square cultivated patches, and we see areas of low fogs, like distant seas, in other places. There is just a delightful chill in the air, appropriate to a mountain excursion; this is a little sharper in the forests of wild holly and live-oak than elsewhere.

A MOUNTAIN CHARACTER

AT THE observatory, a small white building on the top of a knoll, near the head of the incline, we meet Prof. Larkin. He is a typical gentleman of the old school, in shiny black suit, and black skull cap, and it is almost with disappointment that we do not

find him adding knee-breeches to complete his costume. He shows us the telescope, which he hid in a reservoir on the bluff in order to save it when the great hotel fire on this bluff in December of 1905 threatened the observatory.

Then we return to the top of the incline and enter a car to descend. There is not even a conductor now



NEWSPAPER VENDER, LOS ANGELES

to accompany us, and our party makes the trip quite alone in the little car, leaving at 10:20. Suddenly a phantom sea, caused by fogs which never rise above two thousand seven hundred or three thousand feet at the utmost, appears among the orange groves in the San Gabriel Valley. Then the views, ever unfolding, so compel our interest that we forget all about

everything but that at which we look. At 10:28 we are at the foot of the incline and ready for the cars for the city. These leave at 10:40 A. M. and at two minutes past eleven we are again in Pasadena. Thence back to Los Angeles by easy stages we make our way in season for lunch.

SAN GABRIEL—A BIT OF OLD SPAIN

FROM Los Angeles, in the afternoon, we again take our departure, this time, however, for a journey not quite so lengthy, to the neighboring hamlet of San Gabriel (San Gah'bre-el), where the famous old San Gabriel Mission stands. San Gabriel is one of the excursions to which we shall look back later with delight. So primitive and beautiful is the town, that our recollections of it can never be effaced.

We take the traction once again, and find the ride rather an uninteresting one. Real estate subdivisions are the principal adornments of the country through which we pass, until later we come to the orange groves.

From the outset we are charmed with San Gabriel. There is a quaint little tavern, then a general merchandise shop, and after that, country homes among the trees; these have the roofs slanting over the side walls to pillars along the curb. Hardly any of the buildings are more than one story high, and the roofs, even that of the little hotel, are moss-grown.

Ahead, among these picturesque homes, rises the old mission, its walk flanked with palms on the one side and the narrow old cement wall on a bed of brick on the other. In the rear of the church, also

surrounded by a wall, there is a garden of tall geraniums and roses, upon which looks the long white ground-floor porch of the priests' home, overhung with ivy. In front stands the church itself, yellow and ancient.

Stepping inside, we find the walls whitewashed,



A SPANISH TAVERN AT SAN GABRIEL

and hung with rather crude pictures of the Apostles, all in heavy frames. Small oblong windows, high up in the walls, give light to this interior, and while we take seats in the old wooden pews, a young cleric repeats the story of the mission—how the church was built about 1771, the statues and decorations being brought from both Spain and Mexico at that

time. He points out to us the several figures on the altar, the paintings and the old brick floor, and then, at one side, the pulpit from which the fathers preached to the Indians. Then, while he tells how the bodies of five priests were buried inside the church to keep the Indians from looting their graves (for, as their chiefs were buried with all their treasure, they thought that the priests would be interred likewise), the priest leads us into a little baptistery annex, in the center of which small whitewashed room is a stone block surmounted by a great pan or font with a lid of hammered copper, brought from Spain a century and a half ago. With water from a well in a corner near by three hundred Indians were baptized at this font. Only last Sunday, he adds, two children were baptized here, for the mission is still in use as a Roman Catholic Church, the congregation numbering about two hundred and fifty. Years ago the mission lands were confiscated, but there still remain to San Gabriel about a hundred acres, set out largely in oranges, and these lands are worked by the priests themselves.

From the church we wander on into the old Mexican cemetery, where each grave is surrounded by a paling, and is adorned with a large wooden cross, the arm ends of which are quite ornamental. Old Spanish epitaphs mingle here with English, for the cemetery is still in use. Even as we leave the place, in fact, we see six little children bearing a child's coffin into the cemetery, and behind, on foot, a number of women, following the grave-digger.

If we had time, we should enjoy taking a peep into the lives of these people, for they are typically Spanish.

Their principal article of food, for example, is the *tamale* (tah-mah'leh), a dish consisting of beef or chicken, corn and olives, mixed together and ground fine in a machine intended for the purpose, then highly seasoned, wrapped in corn-husks and boiled. And, too, they are very fond of *tortillas* (tor-til'yahs),



FIVE MILES OF ORANGE GROVES

which are made of an unsalted corn-paste and resemble unleavened bread, the dough being patted into very thin cakes which are usually cooked on the outdoor stoves. These tortillas put us in mind of tasteless pancakes. For feasts *chili-con-carne* is added, with wine, if it can be afforded.

Most of the women here make a living by picking oranges, lemons, walnuts, and berries. School attend-

ance is very lax and so the children join their mothers, whole families riding out in merry wagon-loads, to do the picking.

Continuing our stroll through San Gabriel village, the little whitewashed frame houses with the verandas on the second floor overshadowed by pepper-trees, the old tavern with its slanting posts, and the grape-vine tavern from which floats the music of a Spanish guitar, interest us greatly. In the courtyard of the tavern we are shown what is claimed to be the largest grape-vine in the world. It rises from a trunk composed of three or four intertwining vines, and climbs from post to post in the yard. The roots of this vine, it is stated, stretch out for two hundred feet in each direction, and its age is estimated at a hundred and fifty years.

This seen, we start back to Los Angeles, arriving there a little before half-past four o'clock.

LONG BEACH

AT FIVE, we are again aboard a car bound for Long Beach and the Pacific. These cars take one through the poorer district of Chinatown and notably among the laundries. There we are amused to see what look like balloons, dangling inverted, on the roofs. They are, it seems, the laundry hung out to dry inside of sheets. The architecture in this district is very uniform, the homes having steps at one side of the front, leading to an indented porch that is about equal to the front room in depth. Innumerable new real estate subdivisions are out this way, for Los Angeles is unique the world over for these, and to

open such a one the land-owner simply lays out streets, plants trees, and where the main road is encountered puts up ornamental gate-posts. We pass through the town of Watts, and at about half-past five are at Long Beach.

Long Beach is a regular summer resort town with cottages on every hand and an ocean front, along which, only a square away, the main street extends. All manner of candy stores and curio shops are here, and we are especially attracted by curious jewelry in the windows which is made of fish-scales. There is a main pier running out into the sea, and an aquarium, and then, beyond again, we see the beautiful quiet Pacific in the full moonlight, with the great waves dashing in on the sand, and the beach reflecting the waves before the water has fully crept in.

Those of us who have visited the New Jersey resorts are reminded of them here. There are the popcorn and the salt-water taffy shops, the dance halls on the pier, the restaurants, and even the boardwalk, leading to an immense bath-house in the colonial style. We take supper in a café overlooking this scene, where there are sweet peas at each table to add their fragrance to its beauty.

Recently the Hotel Virginia has been built at Long Beach. It is one of the finest hotels on the coast and rivals the famous beach hotels of the world.

THE AMERICAN ROTTERDAM

FOR the morrow we have laid plans to finish with Los Angeles and its vicinity. This means another trip out to San Pedro, where we go for a ramble

among the wharves of our miniature Rotterdam. So great is the number of masts in the slips and of sailors on the quays, and of pieces of lumber and the like, that we call to mind our Dutch *Journey* at once. Otherwise, however, there is nothing to see, the little homes and stores not being especially attractive, and the famous government breakwater, requiring a boat to take us to it, being of greater interest to specialists than to travelers like ourselves.

Returning to the City of the Angels for lunch, we secure a grape-fruit, costing but a nickel out here, to regale us. Then we will go by train to Dolgeville (Dolj-vil), on the Southern Pacific where cars are changed for Pasadena, to see what has become of what was once the largest vineyard in the world. We find it laid out in a series of great real estate tracts,—such is the advance in the value of property in the West.

We continue by rail to Pasadena for another farewell look; and then returning to Los Angeles, call once again at the post-office for our mail.

By the time this is done and our letters answered, and we have had our tea, we are quite ready for bed.

THE MOST SOUTHWESTERLY RAILWAY RIDE IN THE COUNTRY

Our last morning in Los Angeles we devote to shopping. There are little nut-shells of views for this friend, a horned-toad sandwich for that, a little pin of Brazilian beetles set in amber or a handsome jade or turquoise pin for some other. Decorated ostrich eggs, match-cases to contain a photograph under a hidden spring, spun candy, and so forth, all tempt us to purchase.

Then, at 2:20 P. M., we prepare to leave for San Diego, on the most southwesterly stretch of railway in the United States.

While we are awaiting our train we "read up" in the different booklets as to this trip. San Diego (San Dee-a'go) we find to be a city with a population of almost 18,000 in 1900, increasing to 39,000 in 1910,



WINTER HOME IN SOUTHERN CALIFORNIA

and to 75,000 in 1920, so rapidly is immigration peopling the West. The county in which it lies, which is of the same name, has an area of eighty-five hundred square miles, about equal to that of Massachusetts.

This part of California has as good soil as any in all the state, and so alfalfa, vegetables, blackberries,

two crops in a year, and strawberries the year around, to say nothing of other small fruits, are raised. Then there are gems found here—such, for instance, as *kunzite*, which is not known to exist in any other part of the world.

San Diego City, the county seat, is but fifteen miles from the border of Mexico, and it, therefore, is our most southwestern city of any importance.

Now the train is off. For company we have an old Wells Fargo agent who recounts tales of the California staging days, and a couple of Theosophist organizers, of whose work at Point Loma (Lo'mah) we shall learn more. The country at first is flat, then rolling, and interspersed with orange groves and olive orchards. At Anaheim (An-a-haim) we are in the great walnut region, and here and at other stops pecans—salted and in little paper sacks—are sold, much as *pistachio* nuts were in Roumania. At Capistrano (Cap-iss-trah'no), too, where now there are only some old adobe houses, with the Mexican women at work on their blankets, and a few modern homes, recollections of Verne, and also of "Two Years Before the Mast" are brought vividly to mind, while the ruins of one of the old Franciscan missions are to be seen from the cars.

By and by we strike the sea and follow it along to our destination. The track is built almost at the water's edge; in fact in places lagoons run in under it, and here the wild ducks rise in flocks as the cars whirl by. Sunset on the broad, shipless ocean is most beautiful, as seen from the train, the water turning from green to blue, and wonderful cloud forms rising

on the horizon. Night, however, comes on quite suddenly and when we reach San Diego at 6:20 P. M., it is very dark.

THE CITY OF SAN DIEGO

SAN DIEGO is by no means as large a city statistically as it seems geographically. In fact, we cannot recall a town that stretches out so far in proportion to its population.

Our first task, however, is to take the 'bus for one of the famous tourist hotels on the heights, where our rooms are on the ground floor, so that we just step across the hall to dine. We shall long enjoy the recollection of our first night in San Diego. Wishing to call on a friend here, met on another *Little Journey*, we walk out upon the quiet streets under a clear full moon.

It is a strange feature of our sight-seeing that we cannot lay out a definite plan, but must often take events as chance wills. So on the very first morning of our stay at San Diego we learn that an excursion party is to leave by wagonette for Tia Juana (Tee'ah Wah'nah), or, as it is translated from the Mexican, "Aunt Jane,"—just over the Mexican border—and that it will be well for us to join it.

The recollection of our former *Little Journey to Mexico* rises up, and we excuse ourselves for again crossing the border with the thought that we did not at *that* time get so far up into northwestern Mexico as we now are, and so we go.

On our way to the rendezvous, we note in the pretty gardens of San Diego great wicker cages filled with



TIA JUANA

song-birds that carol here, out in the open air, all the year round.

At nine we leave, a fairly jolly crowd aboard. In riding out of San Diego, we note the great number of wares exposed on the walks before the stores, a custom reminding us of our European journeys. Occasionally too, a very high electric light tower rises up, as in Detroit. San Diego looks like a young city, owing to the many vacant lots.

By and by, we overlook San Diego Bay, for which such great things are predicted now that the Panama Canal has made this city the first port of entry for Uncle Sam from the south. A revenue cutter lies

out in the bay, having been engaged in stopping the constant smuggling in of Chinamen from Mexico along this border.

Flowers are in blossom everywhere, almonds and trumpet vines, and for background there are ever the lofty mountains on the border between this country and Mexico,—mountains that rise up into the clouds.

Presently we strike the old national road, and overlook a low, scrubby plain which extends to those distant peaks.

When we have driven four and a half miles from the court-house we pass at last out of San Diego. It is about twenty-four miles to the opposite limit of the town.

Out of San Diego, we are in National City, its main thoroughfare hemmed in by tall eucalyptus (u-ka-lip'-tus) trees—trees with a leaf like that of a willow, and great bunches of black seeds set in clusters like grapes. In these trees, among the dark leaves, one often finds a lighter grey variety of leaf, looking like that of an entirely different species of tree.

The homes of National City, "The Bottom of our Country," according to the maps, are rather suburban places, set in great gardens and interspersed with meadows where cattle graze. For a village or overgrown hamlet too, this place spreads out quite tediously, and by and by we are in open country. We realize that we have left the city at last and are out in the Sweetwater Valley. Eight or ten miles off Uncle Sam is building a great irrigation dam for this valley.

The country is still the rolling green meadow land, with scattered homes and orange groves. Many of

these groves, we note, are edged with tall, densely set fir trees, often cut down into hedges, whose chief purpose is to keep out the sea-wind, which causes the trees to scale. Here and there in the groves we see grooves that look like the runs down which the ball is returned in a bowling-alley. These are the remains of an irrigation system installed at one time when the Sweetwater River went dry.

At last we halt at Nestor, a quaint little cross-roads settlement, where we find the most southerly candy store in Uncle Sam's dominions. The place is known as the Pea Nut Office, for very brown peanuts are sold to tourists here at a dime a bag, by a queer old man, from behind the four shelves of jars in the window. We jot his sign down as we halt,—“Fresh Roasted Pea Nuts and Fresh Nuts. Popcorn and Sweet Cider. Ice for Sale. Notary Public. Real Estate and Soda-Water.”

At about twenty minutes to twelve we strike the hills, and follow them along until a great valley opens, enclosing the town of Tia Juana.

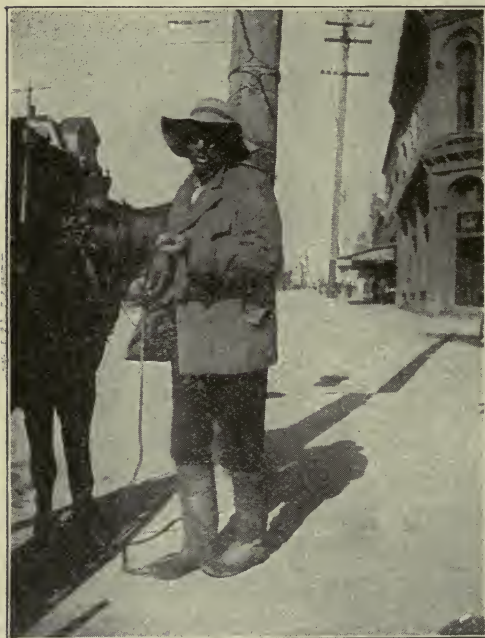
MEXICO'S MOST NORTHWESTERN TOWN

TIA JUANA is a very small place, with horses and cattle grazing outside as they do about some Bedouin encampment, and the little town seeming to be grouped about the bull-ring.

The houses are mere shanties of one or two rooms, whitewashed. Round them play dark-skinned children with touseled hair, who look like Indians. Against the house walls red blankets hang to air. There is a school with four doors at the front and four windows

between them, in which Spanish and the making of drawn-work are the principal studies.

Practically every place has a flag-staff, but we see no flags. The custom-house is a shed somewhat more freshly painted than the rest; the old man in charge simply looks into our wagon and calls, "All right!"



MEXICAN TYPE

First, of course, we go to the dirty little hotel. A dining-room opens on one side of the hall, a souvenir store on the other. In the former the tables are spread with red cloths, and each plate is turned down upon the tip of the knife. For dinner we are waited on by a boy of fifteen and his sister, who speak English well. We are served chili-con-

carne, but otherwise the meal is an American one.

Then we look over the rest of the town. We count just six main stores, each of one room and each with sign-board high up over it, which in turn is surmounted by a flag-pole. Practically the chief revenue of the place is derived from the tourist, and there are raffia

baskets of gay design, blankets, hats, drawn-work, feather pictures and pottery for sale. Graphophones which play plaintive Spanish airs, principally "La Paloma," are to be heard. We enjoy our stroll greatly.

Had we time, we might join a hunting expedition into northernmost Mexico, or go to the Agua Caliente (Ah'gwah Kah-le-en'teh) Hot Springs, two and a half miles distant.

Instead, however, we ride back across the line to the American town of *Ti* (Tee—to differentiate from the Mexican "Tia") Juana, just over the river, where countless sheep feed on the burr-clover. Not less than six thousand dollars was paid to our government in one month by Frenchmen as duty on stock. We also see some of the wild burros captured in the Mexican mountains close by, and then stop to read the inscription on the border monument. A station of the border patrol, too, interests us, and then we pass back into our own country by way of the American custom-house.

The road is very similar to that by which we came, but the tedium is lightened by tales of smuggling which various passengers recount.

When we return to San Diego we are very tired and quite ready for early bed-time.

A SAUNTER IN SAN DIEGO

REALIZING that we have not yet seen San Diego itself, our resolution, before falling asleep, is to devote the next morning to that purpose.

Bright and early, therefore, we are up, to "do" Uncle Sam's most southwesterly city. We have, how-

ever, first a letter to write and we note that the letter-head provided by the hotel has at the top, "The temperature here today is ——," for if there is one thing of which these people are proud, and rightly, it is their wonderful climate. Passing down to the town, we skirt a park of about fourteen hundred acres, catch a glimpse of the home of General Grant and then are attracted by the gardens, in which residents have erected aviaries for singing-birds like those in the story of the "Three Sisters" in the Arabian Nights. Even in the heart of town we find similar cages, often with the upper part of glass to protect the birds in the cooler night-time, the perches being built up there. We note here, too, that the front of the grocery stores is of fine wire screening instead of glass. This is to allow constant circulation of air. Another little oddity that attracts our eye is the fact that the cement pavements have the edge raised possibly an inch, so as to retain rain-water and cause it to flow evenly down. Everywhere there are real-estate offices and saloons, and the latter are indicated by a series of napkins hung from the bar.

The very long residence streets lead off from the court-house; the houses are of frame and built gradually up the heights, so as to overlook the bay. Everywhere the love of flowers is apparent, and roses, nasturtiums and lilies bloom luxuriantly in these balmy February days.

Here, as at Venice, we find a shop of quaint kelp ornaments, and then there are shops where, as at Santa Monica, shells are ground. We come at last to the bay, at one end of the town. There is a park in which

we see some fine date palms. The bay is dotted with the yachts of the local yacht club, awaiting their several owners. Before returning to D Street, the main thoroughfare of the city, we shall wish to patronize the great bath-house, built in Moorish style, which is here.

On our way back to the heart of the city we notice a curio store, with this quaint sign, "George Washington cut a cherry tree. We tried to get the hatchet." We also take a snap-shot of the Isis (Eye'siss) Temple Theater, the property of the Theosophists, of whom we shall learn more, later on, at Point Loma. Nor can a visit to the gem stores for which this section is famous be omitted.

GEMS OF THE SOUTHWEST

BESIDES the abalone pearls, of the roseate hue of an abalone, there are also the large, scaly, irregular fresh-water pearls, while California moon-stones, polished jasper, rubies from the Navajo (Nah'vah-ho) reservation, smoky topaz from mines about thirty-five miles away, black tourmaline and the famous *kunzite*, a pale lavender diamond to be found, it is said, nowhere else on earth, are all to be seen in profusion. We also see obsidian arrow-points made by the Navajos. Having explored the various shops, we find ourselves again at the bay, where we hear the bells on ten warships of the Pacific squadron of Uncle Sam's fleet, which frequently puts in here. As we have already said, now that the Panama Canal is completed San Diego Bay is the first port of entry on our west coast from that waterway; hence it may have a great

future. An old wooden man-of-war, the *Pina Pinta*, with its square windows and two heavy masts, its smoke-stacks all rusted and the whole sadly in need of paint, is tied up here as headquarters for the naval reserves, in quiet contrast to the great warships, the black torpedoes and the cruisers in the bay. Off across the water rises the famous winter resort, Coronado (Kor-o-nah'do) Beach.

CORONADO BEACH

WE TAKE the ferry for Coronado, and the trip across the bay reminds us of that which we made at Boston, to and from Winthrop, on our *New England Little Journey*. Stepping off at the Beach, as it is called,



CORONADO

we stop to visit the two torpedo boats which are close in to shore, where the men are at dinner at a long table stretched under an awning on deck.

Then we walk up the main avenue of Coronado, the street car track in the center of the road, palms to right and left of it, and then the roadway, and after these the arbor vitæ and the walk. Here, too, real-estate subdivisions make up the greater part of the route until we reach a famous park, filled with curious pines heavy with cones, and yellow-blossoming trees, resembling the haw. Here open the grounds of one of the most famous hotels in the world. We come just in season for dinner and step at once into the great vaulted dining-room, a magnificent hall fit to be the *Walhalla* (Vahl-hahl'lah) of Norse legend, where the favored spirits of the mighty Vikings could carouse. The sides of this vast arched chamber are of natural oak, set in tiny little strips, forming various geometrical patterns. A balcony for the uniformed orchestra, projecting at one side, alone breaks the severity of the contour. Below, Chinese boys scurry about, taking out the dishes, while white waitresses, in blue dainty dresses with neat white collars, serve. At one end of the room is a switch-board communicating with the retiring-room; a girl presses different buttons and thus announces to the waiters the arrival of the people they are to serve. The magnificence, fashion and style always manifest here, the life and the bustle (for the hotel is equipped with seven hundred and fifty rooms and can accommodate a thousand people, though the seats in the dining-room are for but six hundred), are really worth having come to see.

We shall want, then, thoroughly to explore the hotel with its adjacent buildings, the plunge, with the "sea-horses" to ride, the tent city on the neck of land running far out into the sea, and then to stroll out as far as this far-stretching reef reaches into the sea, so that we may catch a closer glimpse of the Coronado Islands away out in the ocean. By and by we return to the hotel, where we may meet some former fellow-travelers. Then, as evening comes on, we take a little summer car, with the two benches set with their backs to a central aisle down which the conductor comes to collect his fares, back to the wharf, and there the ferry to San Diego. In the evening we may be fortunate enough to gain admission to a typical home in this most southwesterly city of the republic, a peep we shall heartily enjoy, but which will only serve to show that American homes are very much alike all over the country.

A DANGEROUS EXCURSION TO THE CORNER OF THE REPUBLIC

THERE is one excursion out from San Diego which we as good travelers will make, though it is not taken by most tourists, as it is expensive and requires too much time. This is to the extreme southwest corner of the country, where the United States, Mexico and the Pacific meet.

In order to make this trip, it will be necessary first to get a permit from the *alcalde* (ahl-kahl'de) at Tia Juana, since that section of the country is a center for the smuggling in of Chinamen, and it is only one who has some such purpose in mind who would be likely

to go there. In fact, smugglers, persons fleeing from the United States to Mexico, where they cannot be arrested and brought back for certain crimes, and again, in turn, Mexicans who have fled to our country for the same reason, are the principal travelers. Now and then a company of tourists will make the trip in



EXTREME SOUTHWEST CORNER OF OUR COUNTRY

order to gather shells on the beach, just below the Mexican line; but without the permit, they are liable to arrest by the border police of either nation.

Except for the fact that we make better time when not stopping to see things we have seen before, the ride to Nestor is much the same as it was on the other excursion. Meantime our driver, who served under

Farragut, tells of how he occasionally takes passengers as far as the Mexican line, where they stop to converse with others who have come a like distance to meet them, neither party daring to go over the border. Again, he will carry men to connect with the stage running on down the coast to Ensenada.

At a sign beyond Nestor, thirteen and a half miles from San Diego and three to Tia Juana, instead of turning to the left and driving parallel with the mountains, we follow the chain at its base. Down here there is a school-house of a single room set right up against the mountain side and with a flag on the top. Outside at the pump the boys and girls gather, perfectly indifferent to the fact that their school-house is the most southwesterly of all those in Uncle Sam's dominions. This is a mile and a quarter from Nestor.

Every house after this is interesting, for we are looking for the last inhabitant. It is very lonely out here, with only the mocking-birds, the cypresses, and in the road the yellow California poppies. Now and then a jack-rabbit or a squirrel leaps across the way, and we note the gopher holes in the ground in among the wild cucumber vines and low-growing ice plants, their thick beet-shaped leaves covered with great drops, as on a sweating ice pitcher; the wild cyclamen, too, attracts our attention. Otherwise there is only the wild, rolling, half-cultivated border land. By and by, we see the surf leaping high off on the coast, and we know we are coming close to the goal. We pass through ravines and valleys enclosed by low buttes, and then come out on rising ground where there is a great deserted Mexican homestead.

It begins to rain about this time and the luncheon hour is near, so we camp here, at the first house over the line. The place, utterly deserted, has an air of romance about it, with its empty rooms and falling wall paper. From it we look out on the wild, angry sea with the fog rolling in, and then landward to the



BOUNDARY MONUMENT, EXTREME SOUTHWEST CORNER OF THE
UNITED STATES

The man has one foot in Mexico, one in California, and the Pacific Ocean behind him

valley stretching away into the distance, all the United States to our north and east. It is all most impressive despite the rain-storm.

When the shower has ceased, we drive on to the country's "corner." This is marked by a monument similar to the one we saw near Tia Juana—a great marble structure enclosed by a grating and bearing

inscriptions in Spanish and English, which impress us strangely as we copy them. This is the English version :

Initial Monument
of Boundary Between
The United States and Mexico
Established by Joint Commission
October 10, 1849
Agreeably to the Treaty Dated at the
City of Guadalupe Hidalgo
February 27, 1848
Jn. G. Wilber, U. S. Commissioner.
Andrew B. Gray, U. S. Surveyor

After we have inspected this to our satisfaction, we gather shells on the sand and also wild flowers, of which there are here innumerable varieties. Away off from the road, out on the plain, is the last house on this side of the border. By and by we meet Uncle Sam's most southwesterly servant, a rural free delivery rider named Sinclair, whose route lies out from Nestor. The most southwesterly inhabitant, he tells us, is one Michael O'Brien, aged sixty years, who lives in a little cottage out on the plain. O'Brien, having been first a sailor, started in New York as a butcher. Then he drifted down here and is now living a hermit life, having once been quite wealthy. He has a little cabin and with his single burro he gathers kelp to sell to ornament makers.

The ride back is decidedly pleasant in the setting sun, through the meadows glittering with rain-drops, the meadow larks singing a song of triumph as we enter San Diego after having been to the extreme southwest corner of the country.

HARNESSING THE TIDES

WE HAVE had a good deal of carriage riding now, and so again devote ourselves to prowling about San Diego. We can wander again among the gem shops, where we are certain to find something new and of interest. Then we can go on to the exhibition room of the Chamber of Commerce, where a unique apparatus for harnessing the tides is on exhibition. It consists of a series of diamond-shaped paddles, built by driving piles into the sea-bed, and between these piers are placed tread-mills, which consist of endless chains of floats. The end of each mill, then, is inclined down into the water below the low-tide mark on the one end, and above it on the other. The



UNCLE SAM'S MOST SOUTHWESTERLY SERVANT

waves washing on the shore are forced over the top of these tread-mills, thus setting in motion the paddles and causing them to drive air pumps which compress the air in tanks to be used to drive engines and dynamos, which, in their turn, will generate electricity.

Here, too, we find innumerable maps serving to show the importance San Diego is going to assume



ENTRANCE TO POINT LOMA

now that the Panama Canal is built. There are also exhibitions of the local silk culture, for which the equable climate has made San Diego especially adaptable, since the temperature here has fallen below thirty-two degrees but four times in recorded history. Of this, however, we shall prefer to hear more when we visit the "little old lady of the silk worms."

THE LITTLE OLD LADY OF THE SILK WORMS

THIS queer old lady has her rooms on the second floor of an adjoining building. As we call on her, we find her to be a sort of "Mistress Blasket" come back to life, with her hair parted in the middle and held by a large old-fashioned comb. She wears a loose red Mother Hubbard and a very old-fashioned breastpin. Everywhere about her are silk worms, in every stage of their brief careers. The eggs of the worms, she tells us, are shipped from Japan, on heavy paper, or else from France in round cardboard boxes, perforated to admit the air, and they bring about five dollars a thousand. They may be kept in cold storage twelve months, but as soon as removed will hatch in from two weeks to six months; why some of them take so long no one seems to know. One miller lays from two hundred and fifty to six hundred eggs. Those that are about to hatch are grey-blue. After hatching the shells are white. Worms just out of the egg are perhaps a tenth of a millimeter in length, and of the thickness of a hair. They feed immediately on the leaves of the mulberry, growing so rapidly that at the age of twenty-four days they will be four inches long, and after thirty-one days are ready to have the silk taken.

Then it is that they make their cocoons, ceasing to eat, and being placed in excelsior, so as to spin their little homes, a work that it takes three days to complete. When done, the cocoon is steeped in boiling water to prevent the worm eating its way out and so cutting the silk. Then one end of the long silk thread (for

all the cocoon is of a single thread) is seized upon a stick and reeled off.

Here at San Diego it is then made into tiny tea-sets, into valentines and into a series showing the several stages of the silk worm's life, for use in the schools. From two hundred and twenty to eighteen hundred yards of silk may be obtained from a single cocoon. The silk itself is secreted in a little tube of the worm's body, coming out through two small holes in the lower jaw, as two fine threads, which the worm twists into one as he forms his cocoon.

In the shops of San Diego, too, we are interested in photographs of the funeral of the victims of the Bennington, which exploded in this harbor a few years ago as the result of the commander's carelessness, and with a loss of thirty lives.

POINT LOMA AND THE THEOSOPHISTS

WE CANNOT leave San Diego without one more carriage excursion, that to Point Loma, the home of the Theosophists of the United States. This place became prominent in the public eye when ex-Secretary of the Treasury Gage went there to live, but it is so beautiful and so unique in its architecture that we wonder it was not better known before.

We follow the shore of the bay around until ahead there comes in sight on the heights what seems a sort of temple, with great Doric front, standing out from afar. Behind this is a great glass dome with a smaller globe on top, and toward this we ride on. Here begins the farm of the Society, the whole enclosed by a neat white fence decorated with growing ivy.

Coming to the entrance, where there is a tent city, we drive on to the great white gate, Hindu in style, which admits to the main grounds. A splendid road, flanked with beds of the pink vine geranium, and back of these the date palms hiding from view almond orchards and growing barley or oats, leads up the hill-



GATE TO THEOSOPHIST HEADQUARTERS AT POINT LOMA

slope to the top, where there is a semi-monastic, semi-romantic building which is the headquarters of the Association—the glass dome which we saw from afar, its center surmounted by another cupola; in front of these stands another dome, lavender in color. At the two corners are turrets which give a somewhat conventional appearance to the whole.

At the head of the lane a guide meets us. He, like all the other men here, is attired in a brown khaki suit much like those worn by the rough riders. The land for four and a half miles along the coast, he tells us, is owned by the Society, as headquarters for the international brotherhood. Over this Madame Tingley, as head of the Society, presides. No one, however, receives any pay, and persons come here simply because they are attracted by an interest in the work. Those who are in a position so to do, support themselves financially besides. Children, too, are brought here from all over the world, some from different local lodges, some from afar, to be taught by the so-called Raja Yoga (Rah'jah Yoh'gah) system of instruction, which develops the child mentally, morally and physically in equal degrees. School hours, as we usually understand the term, really consume but two hours and a half a day.

Meantime, however, we have arrived at the main domed building, known as the Homestead. This building is devoted to lower class-rooms and studios, on the ground floor, and to the dormitories of the girls above. As there are some three hundred children on the place, a good deal of room is needed. Children are divided into groups of six or eight each, and each group is accompanied by a sort of tutor, and a nurse, in the cases of the smaller, who remain with them constantly.

Continuing, we pass a number of pretty bungalows of the Theosophists, some of them used by the boys in their work, for the lads live in groups in the bungalows with their teachers. These bungalows,

of a peculiar ventilation and construction, were devised by Madame Tingley herself. The Theosophists, we learn, do all their own work here, not only the carpentry, plumbing and the rest, but also the management of the chemical works, the dye plant, etc. There are about as many adults as there are children, between two hundred and fifty and three hundred in all. Many more of the organization would greatly like to come here, but there is so much difficulty in maintaining those whose presence is felt to be absolutely necessary to the place, that a rigid selection has to be made.

Beyond the bungalows there is a great natural amphitheater, the seats (of wood now, but to be replaced by stone) facing the sea near by and the hills that round off to the beach. Beyond, on the brow of the hill, another tent camp, largely for literary devotees, crowns the prospect.

Before leaving, we step into one of the home bungalows, that of a Miss White, an artist, to enjoy the quaint, rustic and at the same time artistic furnishings, and envy her the prospect from her window out over the gardens to the sea. Spalding, too, the famous sporting-goods man, has a home here which we see on our way.

DINNER IN A LIGHT-HOUSE

LEAVING the Theosophists we continue our ride over the strip of land that connects what is practically a mammoth island with the mainland and with Point Loma itself. Ahead we can see the Coronado Islands rising dim in the fog, while just ahead the surf dashes upon the bluff. Here, too, we may see the tallest

light-house in the United States, which stands four hundred and twenty-two feet above the level of the sea. This, however, was too high above the fogs and hence was abandoned. Later, to take its place, Uncle Sam erected a new light-house here, which is the most southwesterly one in the country. This



POINT LOMA LIGHT.

has two keepers, each with his home close by, and on alternate days these serve meals consisting of bread, bologna and coffee. We prefer the luncheon we have brought, but we want some coffee to warm us and for this are charged the full price of a meal, thirty-five cents apiece—rather dear for a cup of coffee, is it not? But then we enjoy hearing the old light-house keeper tell of his service under Farragut,

and having him point out to us the guns and the cutlasses on the walls and show us his curiosities—dried and pressed pink seaweed, newly ground abalones, and most interesting of all, a photograph of the Golden Gate at San Francisco taken on the one day of the year when the sun sets exactly in the center.

Then we saunter out to a rocky cove, in which, perhaps twenty feet below, the seal play in the waters, while far out at sea the Coronado Islands are now clearly visible.

OLD TOWN AND THE HOME OF RAMONA

OUR way back is practically the same as that by which we came, save that we make a circuit to visit Old Town, a mere hamlet, whose yellow 'dobe church, boarded over outside, and still used, is interesting as being the one in which the fictitious, "Ramona" of Mrs. Jackson's story is said to have been married.

Returning to the hotel in San Diego, we are surprised to meet a Pullman conductor whose aunt is teacher at the mission school of Samokov, visited on our *Bulgarian Little Journey*.

We are now prepared to bid the city of San Diego, and in fact the great Southwest, farewell. We might go on to El Cajon (Cah-hone') to see the raisin vineyards, but we shall find these on the way to San Francisco, and the rain prevents our excursion to the pastures of the Coronado Islands. Consequently, we leave by morning train at 8:40 for Los Angeles, where we arrive at one o'clock. We stop only long enough to get some things left in check at the hotel and then again board the train for the North. We are now start-

ing on a railroad journey of four hundred and eighty-four miles, which will bring us to San Francisco.

Our route is along the Los Angeles River, named Porcinuncula in 1769, and in plain sight of the pigeon ranch visited before. The rolling hills, covered with vineyards, give way to mountains on the right. Of these mountains we shall see a good deal for some time, for our first stop is to be Santa Barbara, a hundred and ten miles from Los Angeles. On the way there is not very much to attract our attention. At Oxnard (Ox-nard) there is a huge beet-sugar manufactory, and at Fernando (Fur-nan'do) we see the site of the mission San Fernando, founded by Father Dumetz in 1797. If we are interested in our geography we shall note on the south the Sierra de Santa Monica, on the west the Santa Sussanna, on the north the San Fernando Mountains. We see, as we go by, neat country towns of frame churches and scattered buildings, then pass through the Sylma olive grove, the greatest in the world. Beautiful long lines of trees rise from the barren ground and then we are in a tunnel, which will remind those of us who made the *Little Journey to Switzerland* of the St. Gotthard. This tunnel, piercing the narrowest section of the San Fernando Range, is a mile and a half in length and it seems to us that it takes a good five minutes to traverse it. Emerging, we are in the famous Santa Clara Valley.

THE SANTA CLARA VALLEY

THIS valley reaches from the mountains to the sea. Here at the outskirts we are in the petroleum country, a

more open valley with the mountains all about. At Saugus a line runs off to the San Joaquin (San Wah-keen) Valley, which we shall visit later on. The Santa Clara River winds its course among buttes in the valley. Even in the tree-tops there is unlooked-for "fruit"—great green bunches of the mistletoe. Then, at Camulus (Kam-u-lus), a mere cluster of houses among orange and olive groves, we have the scene of Helen Hunt Jackson's "Ramona" pointed out to us. Here was situated the Morena (Mo-re'na) Ranch, which was Ramona's home, and here one may still see the artichoke patch, the chapel and dormitories and the kitchen described in the book, and the corrals that marked the starting point of Ramona's midnight flight to the sheltering cañon at the east.

At Camulus it seems as though we were at the end of the great broad mountain valley. Hundreds of cattle browse here and there; we see some of the famous long-horned steers which are so abundant in Texas. Almonds are in blossom, and there are pomegranates and figs and oranges, with here and there an apiary. At Piru (Pe'roo), a small settlement at which our train stops, there are lemon trees. Chinamen have gathered at the station to watch the train come in. Great English walnut orchards, their boughs a pale brown pink in the distance, also begin to appear. Irrigation canals stretch hither and thither among the trees, and then for miles and miles there seem to be only the walnut orchards. Where all this fruit will finally be consumed is a question which we are not able to solve.

As afternoon lengthens and turns to dusk the beautiful cloud-forms that appear on the sky line make us more and more delighted with this region. Among some pear groves there is a town with a name that interests us—Montalvo (Mon-tahl'vo). It was Edward Everett Hale who discovered in a romance by one Odoñez de Montalvo, bearing date of 1510,



OLD MISSION, SANTA BARBARA

the first use of the name California. The town received its name in commemoration of this.

At five minutes to six we reach the shores of the Pacific. The sight at low tide in the dusk is very beautiful. San Buenaventura (Boo-en'ah-ven-too'rah) is here, hemmed in by mountains, and almost as quiet as when the Spanish explorers came here in 1782,

and Father Serra founded the Mission San Buenaventura. Out at sea we can discern Anacapa (Ah-na-kápah) Island, one of the Santa Barbara Channel group, dim, but not quite so much so as the other more distant islands.

A section of apricots and almonds and walnuts follows, and then, in the night, we ride through Summerland to Santa Barbara.

We go by 'bus to the hotel, arrange our notes and then to bed, that we may have an early start on the morrow. Our first ramble in Santa Barbara will long be remembered. We enjoy the stores along the main street with their innumerable novelties, lamp shades made of abalone shells, other shells of a deep blue worked upon pillows; Japanese stores with novelties from far Cathay, and then the series of one-story shops with the roof extending above the walk to poles set along the curb. In the groceries curious custard apples are for sale, and in the candy stores we see watches made entirely of sweets. There is an odd green-painted restaurant, its portico shaded by a very fine grape vine. After our ramble we go on to the famous De la Guerra mansion.

This house is one of the relics of the oldest time. It is a large one-story building forming three sides of a square, and is typically Spanish in its style, with the roof of red tiles except just over the porch, where it slants more and is of shingle resembling slate. On this porch the doors and windows open in very quaint style. This is the home of one of the famous families, descendants of Spanish grandees, which are still to be met with at Santa Barbara.

Of the De la Guerras, we learn, there is now but one son left, and he, true to the ancestral teachings, considers it "beneath" him to work. The original De la Guerra came to Santa Barbara in 1786 with the expedition of friars that was sent to this place. At that time people took what land they desired, although later permission had to be obtained. De la Guerra got about five thousand acres, but he, like most of the old grandees, failed to understand the laws applying to the land and gradually was defrauded of large parts of it. Many of these old grandees, too, De la Guerra among the number, had much of their wealth in herds and flocks, and the killing place for these was of considerable size. Dana alludes to this in his "Two Years Before the Mast." When a boat, such as Dana's Pilgrim, would come in, the grandees would trade sugar and coffee, tea and flour, as well as pelts and tallow. They used also to hold daily audience, when any poor person in distress could apply to them, and when such presented himself the grandee would call his servants and order them to bestow rice and other necessities on the applicant. De la Guerra thus obtained for himself great influence and was known as the grandee of the town, and even to this day some of the older inhabitants take off their hats when passing the home of the present representative.

We drop into the little newspaper office at Santa Barbara for more information about the place. We find that the famous flower festivals for which it was once renowned are no longer held, being too expensive, and also because it was impossible to compete with

those of Pasadena. Then we ask about the native products. We learn that at Alcatraz (Al-ka-traz'), some eight miles away, asphalt was found but recently. Also that this locality produces the famous "ice cream fruit," which resembles the alligator pear, and grows upon trees fifteen to twenty feet high. Santa Barbara, however, appears to us to be distinguished chiefly for having more livery stable carriages and horses than any city of twice the inhabitants on the continent. So numerous are they that enough provender cannot be raised in the vicinity, and quantities have to be imported.

We saunter up the main streets of this typical tourist city. We notice in the shadows cast by the overhanging roofs stands where papers of all the large cities are on sale. Then we board an electric car and make for the sea and the great hotel of Santa Barbara. This hostelry is built in mission style and one side of the grounds strikes us at once. It contains a huge bed of blooming callas, countless hundreds of the beautiful flowers being stretched out here, while great borders of yellow chrysanthemums, and then of red geraniums, flank these and stretch on to the sea walk.

A DOG HOTEL

ONE feature of especial interest to us in this place is a "dog hotel" for the dogs of the guests, capable of holding fifty canines, though there are seldom more than four or five here at a time. No charge is made for their care.

We enjoy sitting on the piazzas of the hotel and

watching the sea stretching to the mountains, where low clouds hover, or else sauntering along the beach, where the sand is exquisitely clean.

Then we take the cars back to town and inland toward the mountains. The mammoth palms, the hedges of callas, the pepper trees and the magnolias that surround the handsome winter residences, built in the mission style, tempt us to use our kodaks again and again, and the great drooping fuchsia shrubs and the red honeysuckles and the fences of white daisies charm us constantly.

SANTA BARBARA MISSION

OF COURSE our destination is the famous old mission, probably today the most interesting of all the California missions.

This ancient edifice stands at the end of a lane of pepper-trees, with the mountains for background. It is built of what looks like white concrete, with the doors outlined in red, and its characteristic note being given by two square domed bell-towers with a cross between. Beyond this extends the long main building, with the seventeen windows. There is an overhanging portico of many arches, so picturesque in appearance that we fall in love at once with this old mission, the most charming of the twenty-one seen on this little journey along El Camino Real.

There is an old brother, brown-robed and hooded, who shows us about. First he points out the old mill-stone of the mission, then the nine bells turned by a small wheel with a handle, and then some of the old vellums or books, some of which are as tall as a

three-year-old child. Old raw-hide beds, used by the early priests, are in one of the white-walled brick-floored rooms. Old parchments are shown in another, and then our guide leads us to the roof for the view, and thence around to the church proper, its interior a good deal like that of San Gabriel, with its simple benches and ancient pictures. From here he takes us



PORCH AT SANTA BARBARA MISSION

to the enclosed cemetery at one side the church, in which innumerable Indians are buried. Today, however, no mounds are visible, though here and there a wooden cross or an old stone tomb marks the grave of some Spanish grandee. It is stated that not less than four thousand Indians, victims of an epidemic, are interred here.

Today there are about thirty-five brothers in charge at Santa Barbara's mission. These are under a Guardian or Superior. The headquarters of the Order which controls the mission—the Order of St. Francis of Assissi, of whom we heard on our European *Little Journeys*—is at Rome. The mission lies in the province of St. Louis, where the Provencal or *Superior* over all the California missions has his see. There is not a very large congregation here, only about a hundred families; regular services are, however, maintained. It is principally the old and sick brothers who are sent to this convent, and they show the tourists about. No woman except the wife of the President or of a governor may enter their quarters at the mission.

OIL TAKEN FROM THE SEA

WE RETURN by car to Santa Barbara for dinner at another of the big hotels, up whose portico there climbs the largest rose-bush in the world.

Then, the last bit of Welsh rarebit disposed of, we engage a carriage for Summerland, where, on the advice of some spiritualists, wells were sunk out in the sea-bed and oil has been struck. As this is the city of vehicles, we are interested in the price—two dollars for the afternoon, with driver.

Our route will run parallel to the sea, with ducks on the waves in the foreground, and out in the dim distance the Santa Barbara Islands just visible, and among oak groves from which the long moss hangs and on which galls are numerous. By and by, as we round a bluff, the town unfolds before us. It is a mere hamlet

of cheap frame houses, but made beautiful by its setting at the very edge of the vast expanse of open ocean. Innumerable oil derricks rise out of the water everywhere. Piers, one of them eleven hundred feet in length, extend into the sea, and at each side of these are more derricks. Latterly, however, the govern-



OIL WELLS IN THE PACIFIC, SUMMERLAND

ment has ruled that beyond six hundred feet from shore no derricks may be built.

Buying a piece of land on the coast entitles one to go out into the sea for oil. A "conductor" pipe, twelve or thirteen inches in diameter, is put down, being driven through the sand into the clay beneath. This shuts off the ocean water, and then a pipe nine and five-eighths inches across goes down until oil

is struck. After that, a third pipe of smaller circumference is sunk. As the oil is in the sand, the latter is pumped out until the petroleum becomes clearer, when the regular two-inch piping is inserted. A well of this sort may be put in working order in a week, derricks being erected on piles seven feet in depth. When pumping begins, an average of three barrels a day of a high grade of fuel petroleum is usually obtained, but as one pump can pump thirty-two wells, and as the engine of this is run by natural gas fresh from the ground, there is practically no expense. Oil never appears on the surface of the sea here, except at well-cleaning time, or when in some great storm a derrick or two is knocked over, or when the sand breaks off the pipes. Fish cannot live in these waters, as the oil kills their prey.

Over the railway tracks at Summerland we may step into the asphaltum factory and see how this is made. The oil, we find, is run into great stills like a boiler on its side, each holding one hundred and twenty-five barrellfuls. These stills are bricked about, and in them the oil, heated by oil, is brought to a temperature of 750°. The distillation is then run out through a condenser to be sold as fuel oil, or, when further treated, as gas oil, while what remains is the liquid asphaltum. This process takes about twenty hours to complete. From one hundred and twenty-five barrels of raw material about twenty-eight barrels of the finished asphaltum will be obtained, and while the raw oil brings about fifty cents a barrel, the asphaltum sells at from ten to twelve dollars a ton, being used principally for paving and roofing.

Returning to Santa Barbara in the evening, we look in on the gay throng at another of the great hotels, for this city is a famous winter resort, where pleasure-seekers from all lands congregate in the "season."

THE LAND OF HONEY

As THE night train did not stop conveniently to allow us to visit the Simi Valley—famous for its apiaries—on our way up to Santa Barbara, we must now "back track" as we are very anxious to see how this interesting industry is conducted. Owing to its equable climate and the profusion of its wild flowers, orange and other fruit blossoms, which give richest materials to the bees for conversion into honey, Southern California is one of the great honey-producing sections of the world. Many men have made great fortunes in this industry, and in Pasadena we were shown a perfect palace, surrounded by large and exquisitely laid out grounds, that belonged to one of the "honey kings."

Leaving Santa Barbara in the morning we go to Strathern, where a wagonette conveys us to Simi.

We follow directions and walk up the track to the first house, for we wish to visit one of the great apiaries for which this region is famous. When we hail the owner he first looks us over, to make sure we are not tramps, and then invites us in.

We ask him at once about the bees. In starting an apiary, "*a'pery*," as they call them here, he tells us the first step generally is to buy a colony of perhaps a hundred hives, worth three dollars and a half apiece. There are about forty thousand bees to a hive in the working season, but the bees' life is very short, so nature has caused them to breed rapidly. The story of the

hive centers about the queen bee. She is peculiar in that while her eggs appear like any others, she can lay male or female eggs at will, and does this in cells of different sizes, the worker cells being about one-fifth of an inch across, and the drone cells smaller; both are hexagonal. In the ordinary honey season,



WHERE THE BEES MAKE HONEY

when the bees are storing honey, the queen lays two or three hundred eggs a day, or two or three times her own weight in eggs. Of these the worker eggs hatch and reach maturity in about twenty-one days, hatching at first as larvæ in forty-eight hours and remaining at this stage of development four or five days, when the transformation into the perfect insect

begins. In the working season the life of a bee is very short, thirty or forty days, whereas when the insect is not working it is much longer. Death is due largely to accidents and the strain of the season. The bees that do not work may live to be two or three years old. In the spring the hives contain comparatively few workers, perhaps two thousand, and no drones at all, as these do not live over the winter. As soon as the flowers come the bees begin to work, and as there are many flowers they get a great amount of surplus honey; for a long time in the spring this is used as rapidly as gathered, and is even supplemented by honey kept through the winter for feeding the young bees, as the queen is now laying. If the season promises to be good, the queen begins laying drone eggs, she being governed by the amount of honey that is brought in.

The workers are the first hatched. They mature in twenty-one days, and a week later begin their work in the field, gathering both honey and pollen, the latter being used to mix with honey and to feed to the brood. The drones, too, fly out soon after hatching, but their flight is simply to mate with a chance queen on her so-called wedding flight. This mating is done high in air.

When the queen has filled the hive with a brood and the bees are hatched in such numbers as to overheat the hive, the queen feels it is time to send out a swarm, and if the honey season is good the old queen heads such a swarm, and a young queen, reared for this purpose in a special cell, remains in the hive after having gone on her wedding flight. The new

swarm will then settle anywhere, and apiarists usually cut down the bough on which the bees have swarmed and shake them into the new hive.

As there are queen bee eggs at all stages of incubation in the hive when the old queen swarms, the first act of the young queen will be to go through the hive and sting through the cells of rival hatching queens and so kill them, unless she sees that the season is so good that there may be a second swarm, when she will permit one to survive.

The queen egg cell is about the size and form of a peanut and the queen is fed on what is known as royal jelly, which is milky white and very pungent.

A colony of bees, it is stated, will yield about two hundred and twenty pounds of honey a year.

We are next led to the rough little shed which serves as extracting house, and here see a wheel into which the combs of honey are set. The tops are then shaved off, and the centrifugal force produced by revolving the wheel dashes the honey into the receptacle below, so that the comb may be used over and over again. Strangely enough, honey is seldom adulterated and never artificially made. The wax of which the comb is made is tasteless and indigestible and is no longer considered as having any food value. The tops and bottoms of the cells, after being clipped off are put in cases in the sun to be melted and the wax is then sold for commercial purposes.

In order to inspect the hives, which are set out on the hillsides, we have to wear crepe veils that are rather annoying, and we are quite glad when, returning to the house, these can be laid aside.

We dine here at the honey ranch and partake of a typical country dinner, to which the hired man sits down with the family, while one and all wash hands in the same tin basin to prepare for it. We then spend the afternoon out on the porch watching two little girls in picturesque sunbonnets playing about with their dog, making mud pies and searching for mushrooms in the broad fields that separate them from the nearest neighbor. We even walk over to Simi, a typical country village, to kill time until the train leaves which bears us back to Santa Barbara, whence we are to continue our northward march.

THE CITY OF MUSTARD

FROM honey to mustard is the transition we have before us, for our next destination is Lompoc (Lumpock), probably the greatest mustard market in the world.

The trip thither by rail is not without interest,—sixty-six miles to Surf, and then ten miles on a branch line to the town. We follow the line of the Santa Ynez Mountains on the one hand and the Santa Barbara Channel on the other. Away out to sea is San Miguel (Mee-gull) Island, on which Juan Rodriguez Cabrillo was buried January 3, 1543. The route follows the Camino Real once more and is that taken by Juan Crespi, the path-finder of Junipero Sierra. At Point Concepcion (Con-cep-ce-own), our party will be interested in its light-house, as well as in the wireless telegraph station at Arguello Point.

At Surf, a mere station beside the sea, we dismount to await the branch railway for Lompoc. We enjoy

this waiting by the open ocean, with the ospreys flying high above our heads.

A brief ride brings us into Lompoc itself, a village of neat little frame houses, surrounded by hedges of cypress to cut off the wind. We see the wild mustard in bloom at the sides of the one main street, but look vainly, at this season, for the other.



IN THE MUSTARD FIELDS

Finally, we chance on a mustard-raiser, who tells us about the industry. There are two varieties of mustard seed, he says, the red and the yellow. The red brings the higher price, from three cents a pound up, and a fair crop of this, per acre, will be about a ton. Seed is sown in February, the exact time depending on the rain. It is thrown broadcast over

the earth. In about a week the seed comes up, resembling a sprouting grain. In June the plant blossoms; the flower of both varieties is yellow and very fragrant, so that the prospect is a most delightful one. About the last of September, the seeds ripen, the plant needing practically no care when once sown.

The mustard plant is then reaped with a reaping machine and collected in bunches of a pitchforkful each. These are gathered in great wagons, where they resemble hay, and are hauled to a great sheet of ducking, where the seed is threshed out into sacks of about ninety pounds. A hundred pounds or so are threshed at a time, eight men operating the outfit for hauling and dumping on the sheet. Once on the sheet, horses do the threshing, being driven about over the plants with a roller five or six feet in diameter. When the straw has been removed from the sheet the seed is taken to the fan-mill to clean and then is put in sacks and shipped. Not less than seventy-five thousand sacks of mustard go out of Lompoc a year, it being about the only place in the country where the grain is raised in any quantity.

After we have visited the bean fields we ride out into the Lompoc Valley. Beans we find here to be almost as important as mustard, being harvested by a machine like a plow-share or a long knife of steel fastened into a wooden frame shaped like a sled, which cuts three rows at once as a lawn mower would. The cut plants are then bunched together and hauled to the threshing place to be threshed out and put in sacks.

Potatoes and apples, dairy products, stock, and honey, all come from this valley. Oil derricks indicate another industry, and the almond orchards are large. Then, on the outskirts, we pay a visit to the old mission, now a ruin, but interesting nevertheless, reminding us of our rambles among the ancient castles of the Rhine-land. There is a mission at Santa



RUINS OF MISSION AT LOMPOC

Yñez (E-nais), just twenty-five miles from here, where, we learn, services are still held. Strangers are rare at these missions, however, for there is nothing else of interest to bring people to the towns. The mission near Lompoc, which was destroyed by the earthquakes of 1812, was founded in 1787, and is known as Purísima (Poo-riss'e-mah) Concepcion.

We explore the interior of the ruin and notice that the bricks are red outside, and of a bluish-black inside. As nails were not to be had at the time that the mission was built the beams were bound in place with rawhide thongs, some of which still dangle down. Owls and squirrels flit and scurry among the ruins as though to impress us with their age.

At supper at the hotel a dish of English walnuts, raisins and almonds is on the table, as is usual in hotels in this part of the West.

CURIOUS ROCKS

ON THE morrow, we can visit the great beds of *diatomaceous* earth near here. It is used, mixed with asbestos or chalk, to form a non-conductor of heat, and is converted into panels, doors and other fire-proof necessities and ornaments. The stuff is very light and is quarried with pick and shovel by miners, who pile it up and let it dry for a few weeks, to get out the natural moisture, when it becomes lighter still, and is shipped to be made into *magno-silica* and other forms. It is also used in the partitions of walls to deaden sound.

Of course we want to see the famous *silo* (sigh-lo), a round tower near here recalling that of Pisa. It is forty feet high by sixteen in diameter. The outside of this cylinder is a wooden framework, the inside of flooring. The interior is sealed about with tarred paper, and on the top a bed of straw perhaps twenty inches deep is put, which molds to form an air-tight top. Whole stalks of corn, and green stuff of every kind, that cannot be used when fresh, is chopped up and

placed in the silo where it keeps sweet and fresh until all other green fodder is scarce, when it is fed to the stock which thrive well upon it.

We saunter over to the great mustard barns, too, and see the seed packed, and after that, the sun proving too warm outside, we sit in our rooms in the quaint little hotel until train time, getting our journals in shape.

Then we return to Surf to continue up the main track of travel. We enjoy riding down right by the side of the sea, or, when we skirt inland, among the great sand-waves which the railway had to fight when building this section of track. These waves of pure beautiful sand have drifted up where the green meadows slope down, making inroads that look like the runs of water one sees in New Jersey. At Oceano (O-shan'oh) we pass a winter resort, but continue on to San Luis Obispo (Lu'iss O-biss'po).

SAN LUIS OBISPO

WE HAVE come to San Luis Obispo because we have been told that here is the largest prune orchard in the world. The town we find to be very scattered, the houses principally of frame, each with a sloping roof of red or blue, edged in white, not unlike a Chinese pagoda. Here, as elsewhere in this section, there is a sanatorium, and old people and consumptives are numerous because of the balmy climate.

The city sights we soon exhaust. They consist only of the great white court-house and the mission, very well preserved. Then we engage a buggy for the land of prunes. Our route lies into the open

country, among lemon groves, from which now and then monstrosities such as four lemons grown together and weighing fifty-two ounces, are obtained. We learn of the local products —of *tugsten*, a new mineral which is found near by and is used in tempering armor plate—and of the copper and silver mines. Distances are very deceptive in this clear air, and our drive is longer than we expected. Its monotony is varied by one of those accidents which are apt to take place on a protracted journey such as ours, namely, a run-away, which enlivens the trip and gives us a scare.

By and by, however, we come to our destination, America's greatest prune orchard, only to learn that latterly the owner has replaced these trees with English walnuts and the prune orchard is gone. This, however, is so typical an incident of the trials which come to the most careful traveler that we cannot omit recording it in our day books. We return by way of Edna (Ed'na), a little hamlet from which the school children are just driving home in their sulkies, and we listen to their talk as they ride at our sides.

They are telling of one of the frequent barbecues held hereabouts. A hole about five feet by three is dug in the ground, and into this good oak timber is put; this is lit and a great fire started. When the flames have ceased and only the red-hot wood coals remain at the bottom, large pieces of meat, well seasoned, are strung upon rods of steel or willow over the pit. When these are roasted "to a turn," the company gathers, men and women sitting alternately about the long "bench tables," to enjoy the feast.

There are quite a number of Swiss and Portuguese settlers in this vicinity, and we learn that they frequently celebrate their various national festivals.

From this point we could continue on to some neighboring hot springs, but as we shall see these very shortly, at Paso Robles, we can leave that rather circuitous drive out of consideration.

MUD BATHS OF PASO ROBLES

WE RISE again rather early in the morning to take the train for the thirty-six mile ride to Paso Robles (Pass-o Ro-bells), or the "pass of the oaks," so named for its venerable oak trees. The springs both here and at Santa Ysabel, two miles distant, where there is a flow of six hundred thousand gallons a day, are noted for their curative properties, being especially good when taken in connection with the mud baths, for rheumatism and skin afflictions.

Our ride is through a pass of the Santa Lucia Mountains and then through the far-famed oak forests at the head of the Salinas River to Paso Robles. Owing to the grade, our speed is slow and we note the altitude at one place, Cuesta (Koo-ess'tah)—one thousand two hundred and eighty-nine feet. Hot as it was yesterday at Lompoc, so hot that we did not care to sit out of doors, here there is frost upon the grass and we can see our breath. On the car the newsboy sells bottles of oyster cocktails, a custom seldom met with in the East but very general in California. Paso Robles we find to be a village of frame houses thinly scattered among oaks and cy-presses. Great six-horse lumber teams go by, and

there are also soda works. Close by is a civic bath-house, where people can take the baths, and there is a little cobblestone fountain, out of which the lukewarm water pours, free to the poorest that comes. The taste is that of sulphur and not very bad, if one cares for odd tastes.

We peep in at the bath tubs, the plunge and the rest. All but two of these are of sugar pine, instead of porcelain, as it appears that china is affected at once and becomes a dirty gray. We put a half dollar in the water and at once it is turned black.

The city, we learn, operates its baths in opposition to those of the great hotel which had practically inaugurated a monopoly of the waters, and as the latter naturally puts up more pretentious bath-houses, the warfare is a merry one.

The new city bath-house of concrete is the next thing on the itinerary, and here we see the sulphur, sweat and mud baths. The last named are unique. The mud is often found naturally prepared, though quite as often it is artificially made ready by allowing the waters to percolate through it for some time, leaving the soil heavily charged with mineral. When the earth is thoroughly "rotted," it is placed in tanks three feet and a half by four, and four feet deep, into which steps lead. Here the mud is kept at a temperature of 115° by means of steam, and one can immerse oneself as deep as one wishes. If, for example, the foot be affected with rheumatism, the patient will sink the leg, up to the knee perhaps, in mud, and there let it remain for about six or eight minutes. From the mud one passes to a hot shower bath, then into

the sweat blankets and later into a plunge. After that one may take massage if desired. Special tubs are reserved for certain diseases and fresh mud is ever being added. The time required for a bath of this sort is from an hour to an hour and a half, and the price is fifty cents. To us the mud appears rather slushy, the top seems all water, and the bottom like thin mortar.

Again we remember that in California the great hotels are really one of the sights of the state, and so we pass on down to this one. We find that out of the great lobby there opens a hall which leads to all points of interest. It runs through the hotel, to the cozy glass sun parlor, where there are large willow easy chairs and little tables, then into little enclosed arcades as on an ocean liner, and so to the office of the hotel baths. From there we step into a little reception room, then down an aisle between the dressing-rooms and finally into the baths themselves, where the fine long white porcelain tubs are filled with the pale blue water.

From the hotel we step out into the park in the heart of the town. Here little shops cater to the farmers round about, rather than to the guests, as most of the latter are sick and have come supplied with what they need.

A little horse car, the horses set in tandem, comes by, and we board this to ride to the end of its route. The trip is about two miles in length, out through meadows dotted with the famous oaks of Paso Robles which are bearded with moss, and over a country road, where the health-seekers walk up and down for daily

exercise. At the end of the line is another bath-house simple in form, and here, too, is a warm spring which has a rather pleasing sulphurous taste. The water is much hotter than at Paso Robles itself, being at its coolest 109° , and the other springs averaging 112° , 116° and even 122° . Patients usually go down into a concrete vat, built right over the 108 -degree spring, and stay there for four minutes. Then they pass into a pool at 112° for three or four minutes to wash off the mud, and after that go into blankets, where they sweat probably half an hour. The square steaming mud pit recalls to us the hot baths of New Zealand, of our *Australian Little Journey*, and also the pictures of the tortures of Hades we found on the church portico at Dupnitza.

We shall dine at Paso Robles and then continue onward, up the coast, as it were, for the ocean is but twenty miles distant.

The country traversed is rather interesting. We go through Kings City, west of which lie the ruins of Mission San Antonio de Padua (Pad'oo-ah), founded in 1771. At Soledad (Sol-e-dad) is another mission, that of Nuestra (Noo-ess'trah), Señora de la Soledad, which dates from 1791. Crossing the Salinas (Sah-li'nass) River and after passing through the town of that name (which is famous for its beet sugar factories), we might stop off for a nine-mile drive to the famous Vancouver (Van-koo'vur) Pinnacles, where are subterranean lakes, trap-rock statuary, and other objects of interest to sight-seers. We, however, are bound for what we believe to be an even more interesting place, Castroville (Kass'tro), where we again

leave the main road of travel for Monterey (Mon-te-ray). We are getting on; we shall be only a hundred and twenty-six miles from San Francisco when we reach Monterey.

THE MOST FAMOUS LITTLE TOWN IN THE WEST

JUST as Concord is the most famous little town in the East, so in the West Monterey has that distinction. Within six miles of it are more points of interest than are afforded by any other place in the western wonderland.

Nor is it without history. Cabrillo, we remember, coasted along here in 1542, naming the place the Cabo de Pinos (Cah'bow Pe'noss). Then in 1693, Sebastian Vizcaino discovered the Carmel (Kar-mell)



CUSTOM-HOUSE PORTICO AT MONTEREY

River, and on the 16th of December landed at Monterey. Here, in 1770, Junipero Serra, whose name has become so familiar to us, founded the mission San Carlos Borromeo (Bor-ro-may'o), later transferring



ALTAR IN MONTEREY CHINATOWN

it five miles east to the banks of the Carmel River, where we will visit it.

Closely associated with Monterey is Del Monte (Dell Mon'tay). In fact we have probably thought that the famous Del Monte is a hotel *in* Monterey. As a matter of fact, it is not, being at another station entirely, and if we are wise we will take rooms in the splendid little hotel at Monterey, and then view the Del Monte as visitors only.

But we are anticipating, for we are still on the train, and having seen that last mission, have wandered into the dining-car with twilight, to indulge in California artichokes and other western viands. In the night and rain, we dismount at Castroville and there take another train for Monterey. At the station of Del Monte many people get out, but we are uninfluenced by this and continue right on to the city. There, as everywhere, we find the hotel rates include meals, whether they be eaten in the hotel or not.

THE OLD WHALING DAYS AND THE NEW

THOSE of us who have visited Nantucket may recall having heard the old whalers there speak of Monterey whaling, for in its time this place was famous for its whaling expeditions. So, being in Monterey, we shall look up the old whalers.

For breakfast first, however, we again indulge in local products—mackerel and barracuda (bahr-ra-koo'da), preserved figs and sliced oranges. Then we take a stroll in the main street of the town—a very small town it is—and look in at the shops. We note the *tamale* everywhere; in fact it and the curio shops would seem to monopolize commerce. Pretty slabs of red-wood, showing the hairy bark, queer ornaments of carved whale-bone, little shell ornaments, etc., are the chief displays. At the upper end of town the old custom-house, its second floor enclosed with a projecting veranda, while the first floor has no porch, is interesting. It was built long ago, and is particularly famous from the fact that it was over this building that Commodore Sloat

hoisted the American flag in 1846, to signalize the passing of California from Mexican rule.

Seated on the benches of cobble-stone under the veranda of the old custom-house we meet a former whaler, a Portuguese, who came here years ago to engage in whaling. Unlike the grounds of the Nantucket whalers, the whaling grounds for these men began right off this coast; occasionally a whale would be harpooned right in the bay itself. Seldom, however, did the mariners await such luck as that, but instead, if the weather was good, one boat would go out two miles, and another perhaps a mile and a half and take position, so that the first boat was within sight of the other and yet was not in its path. Then they drifted along and if a whale was seen, he would be driven toward the whaling grounds of the particular company to which the ships belonged, and there taken. Thirty-foot boats, holding six men apiece, would be employed for the work, and these would carry a swivel gun to shoot the harpoon, with from twenty to thirty fathoms of rope attached, into the whale. When the whalers met a cow, calf and bull whale the work was somewhat simple. If the parent was harpooned, the others would flee. But if the calf was first harpooned, the parents would remain trying to protect it and the whalers would secure all three.

As we had a good account of whaling given us on our Nantucket trip, we do not think it necessary now to jot down all the explanations received from the old salt. We record only the fact that there has been no whaling at Monterey since about the year 1893.

We shall learn of other fishing here, for the pomano, for example, which is taken in the barracua nets. There is no bait employed for this, the fishermen going out by night, two in the net boats, and when they feel that the net is heavy with the fish, they take it up, sometimes three or four times in a night.

The Chinese hereabouts do a great deal of fishing for the so-called rock-fish and smelt, which latter are caught in a net and then drawn up. The Japanese, too, are indomitable fishermen, frequently going out to harpoon the sharks that are encountered in these waters. Occasionally a boat will capsize and throw the men into neighboring nets, a rather dangerous accident, but the Jap does not seem to mind in the least.



A BIT OF MONTEREY CHINATOWN

Here at Monterey we are shown an interesting relic, the anchor of the famous *Natalia*, the ship on which Napoleon escaped from Elba, which sank in this bay. The anchor was uncovered but recently and will probably be placed in a local park, if not returned to France.

Across the bay, as we walk along, we see a little jetty out from a grassy cape, and on this lawn the famous Junipero [Monument, with the priest standing within a grating, that we have so often seen in pictures. The foundation for the monument to the man who raised the first flag here also is close by.

Returning to the heart of town, we now board a street car for Del Monte and for what is claimed to be the finest hotel in the world.

DEL MONTE

THE cars taking us to the hotel have both ends open, the center enclosed against rainy weather. On the way we note the number of Japanese establishments and their pretty names ("Sun Rise and Co.," for example); then an old inn with the yellow, sloping roof and white verandas on the upper floor overhanging the walk. Barbers here not only have their pole at the curb, but also two bars of red and white stripes on each side of the door. We pass through New Monterey, a more modern place, and dismount finally at Del Monte.

Across the road stretches a high, white-paling fence, lined with a still higher box hedge that recalls the tale of Sleeping Beauty. Behind this rise tall pin-oaks, the vanguard to the hundred and twenty-six

acre preserve. Through the moss we see the stables of the hotel. We pass through an arch in the hedge, cross the road skirting it within and then proceed through another hedge and up the lane. On our



DEL MONTE

right are conservatories and beds of violets and daisies, fox-glove and salvias. On the left other green-houses are built of wood scantlings instead of glass, and these too contain rare plants. There is the red cianthus, for instance, which has a flower like a lobster's claw, and other unusual varieties.

A neat little store here sells cut flowers, cyclamen, primulas and violets, and as we stop we note a sign announcing the hotel's weekly fire drill, for a regular fire company is maintained. Then we continue on

over the famous park, where orchids and geraniums and square-shaped flower beds continue to reveal their beauties. We come to another road which winds through a forest of bearded, gnarled oaks and tall, equally bearded pines, beneath which the grass and the buttercups sprout. This we cross, catching a glimpse as we do so of many curious rectilinear flower beds in the forest, and observe that the pines that shelter them have their trunks covered with ivy.

At last, however, passing the palm beds, we come to the hotel, a three-story frame structure, red-roofed, yellow-painted, with a veranda, glass-enclosed in places, along the lower floor, and with an annex on one side built in a style which recalls that of Swedish buildings.

We do not remain long in the hotel, but as we are looking around we notice one very strange thing about its arrangement: Directly facing the door, across the lobby, seven broad carpeted steps lead to a narrow landing on which are some palms. Ahead there is a wall of mirrors. Why the stairs? we wonder,—but only until meal time, when the mirrors part and reveal the dining-room behind. Another oddity is a corridor which, like the one at Paso Robles, leads off from the lobby through the entire hotel. We take this corridor, and by and by we find it comes to a parting of the ways, a partition down its length making two halls instead of one. One of these slopes up to another floor, the other down to the basement.

THE WHALE-BONE WORKER

ON OUR way back to Monterey we drop in to visit a curious little industry, the working up of the bone

of the whale (not the whale-bone of commerce) into fanciful shapes, such as pictures of the mission, etc. The bone for these was obtained from the old sidewalks of Monterey when these were condemned. Owing to the accumulation of this material when they were laid, they were composed of the bone of the whale, which now is simply sawed into shape and then given an artistic finish.

PACIFIC GROVE

IN THE afternoon we go by car to Pacific Grove, one of the most delightful little spots on the coast. On our way we pass a Chinese fishing village, to be visited later on, the little frame huts huddling on the rocks much as they do at Canton. The village is quite different from any other Chinatown in the land. At the Grove itself the neat frame houses all stand in a dense cypress grove; some of them have roses climbing up to their eaves and all have flower beds about them. In fact the Grove is just a sort of park by the sea with the addition of the California flowers and climate to make it charming. At the end of the line we wander out to a rocky cove where the wild, beautiful surf beats high on the great rocks with such force and continuous motion as to recall the whirlpool at Niagara. There is a little Japanese tea garden here, into which we step and enjoy the breakers and the beauty of the site over a steaming cup of Hyson.

We then stroll back along the coast to the Chinese fishing village. We find it a most interesting place, which we shall not soon forget. The huts

are of wood, black and weatherbeaten. The people are all fishermen, and being away from the beaten tourist paths and not much troubled with sight-seers, they are quite friendly. They let us wander as we will



CHINESE FISHING VILLAGE NEAR PACIFIC GROVE

and on closer inspection we find the houses to consist of one or two rooms; the only windows are at the top of the roof; a single narrow door is left open to the sea. Inside some of the houses there is cheap wallpaper and in the gloom we detect a low cot covered with blankets unfolded against the wall, a few chairs, and general disorder. The men of the village go about here in loose black satin trousers and light blue satin coats over a ministerial-looking vest, the hair done in a cue which is frequently wound about

the head. They are very careful of their cues, for without them they can never return to China. The women hobble about with nothing on their feet but clogs. They have not the abnormally small feet we read of as characteristic of Chinese women. It seems that only the upper classes are thus deformed. They wear circles of gold in their ears, from which hang pretty green stones.

Several of the houses have on the outside of the door a little shelf where joss-sticks are burned in tin cans. Across the beach, on the rocks, the Cantonese skiffs are drawn up. They are square at each end, while from the middle rises a low mast, across which an iron bar is fastened at right angles; from the ends of this hang iron nets. In these pieces of wood are burnt at night in order to attract the fish. The fishermen usually go out at two in the morning and return about two in the afternoon.

PROFESSOR LOEB'S LABORATORY

A BIT farther down the beach we see two neat frame houses on a well kept lawn, seemingly hidden from the world. This is the laboratory and summer home of the famous Prof. Loeb, who is working out the mysteries of the origin of life. Often on a fine day Mr. Loeb, a genial, middle-aged gentleman, may be seen walking up and down for a bit of exercise, while his assistants bring fresh sea-urchins from the rocks.

If it chances to rain we will hurry back to Chinatown, for the downpour will give us an excuse to take refuge in one of the fishermen's huts and so see how

they look inside. The tiny, foot-square windows up in the peaked roof and the floor of dirty bare boards recall the houses we visited on our *Little Journey to Iceland*, although there we did not see, as here, an opium outfit burning on the unmade cot. There are twelve children in this family, and as the girls wear trousers it is hard in the dark to tell girls and boys apart. Some of the boys wear American attire, but the little babies are in the gay Chinese costume,—green suits, little round caps and white lace dresses over all. Against one wall, on a projection like a mantel, is the joss. Red papers with black lettering, forming three sides of a square, are on the wall, and in front of this are pewter utensils like candlesticks into which the joss-sticks are placed. Then there are two pewter bowls for sacrifices and a dish of blooming narcissus and the food from which the spirits of the ancestors are believed to take their sustenance.

“Here are my papa and mama,” our host explains, while his little son lights some joss-sticks and sets them burning in the cups.

By and by, they bring out a great wicker basket and from it take a blue china tea-pot, pouring from this into handleless cups weak Chinese tea, which they take without sugar.

Again returning to Monterey, we chat with some of her citizens about her past. The first theater in California, we learn, was here, and in this Jenny Lind sang. Here, too, General Sherman wooed a girl, secured her promise to marry him and then never came back to claim her. Here some of the scenes

described in "Two Years Before the Mast" took place, and at Monterey Robert Louis Stevenson rested awhile in his search for health before he became world-renowned.

THE SEVENTEEN-MILE DRIVE

THE famous seventeen-mile drive in this vicinity is another of the many attractions which justify the claim of Monterey to the distinction of possessing more points of interest within its six-mile radius than any other place of like size. We have reserved the next day for this, and start early. Our route lies again toward Chinatown, and as we wish to take some photographs we diverge to pay it another visit. We pass through a portion not seen before; and so reach the cemetery, where each lot is surrounded by a board fence originally square; inside this are the graves. A new grave is made conspicuous here by a tall pole topped with a gilded piece of board to which is attached a bit of spruce. From this board a pink flag covered with black characters is draped. Near this is a shorter pole on which is a broader pink flag and a brown ribbon trailing to a third low staff which bears a pink Chinese umbrella trimmed with green. An old soap-box filled with edibles stands beside the grave.

After having been buried several years, the remains of the Chinese are shipped back to China, so that the cemetery is far from full. Continuing our ride, we come by and by to the forest lodge that admits to the famous drive. As this is a private institution we pay a quarter apiece for the privilege of driving along the

road, and then skim down the avenue which leads into the pretty pine woods and through the open meadows. A *catelo* (kat-e-lo), a cross-breed of bison and milch cow, roams here, taking to his heels



CHINESE GRAVE IN MONTEREY CHINATOWN

at the sight of us. On the rocks by the sea we find here still another, smaller, Chinese village, and then ahead the famous Ostrich Tree comes in sight. Out at the tip of a cape, it looks like an ostrich just about to peck his way into the sea. As a matter of fact, the Ostrich Tree really consists of two trees, both cypresses, that have grown into each other and have assumed this curious shape.

Again and again we dismount along the shore to

gather the magnificent large abalone shells to be found here in any quantity. We diverge from the main path to pass through the cypress forest, strangely wild and weird and reminding us of the Mount of Olives, to reach the Ostrich itself, that we may take a near snap-shot of it. The cypresses here, it is claimed, are unique, the wind having so blown their



MONTEREY PINE TREES

branches as to form regular shelves or layers smooth as a hedge all up the trees. The sea runs in, forming quiet little bays, and there are more Chinese fishing-huts, mere "wicki-ups," that fit well into the scene and recall the South Sea Islands so forcibly that we should not be surprised to see some pirate ship come sailing in. It is a very lovely scene, and we feel as

though we should be perfectly content to ride on through these seaside forests forever.

By and by, however, we emerge from the drive and continue on our way to Carmel.

CARMEL-BY-THE-SEA

THIS town is rather new, and the way to it is downhill through the woods, where the scene is one of pristine wildness. In the pine forests, however, homes are being built, principally of shingles and having a rustic air that recalls the small towns of Wisconsin. On the main street there are perhaps six stores in all, and a hotel set among the trees on the seaside. We



CARMEL MISSION

drive by and on to the open forest-enclosed valley in the mountains, to the old mission of Carmel. Beyond it are the ruins of the first mission, long since passed away. This more recent one has a little yellow dome and cross on one side, while to right and left of the center the bells hang in small towers. From here we return on the circuit of the drive to Monterey.

While there is still time between trains at Monterey, it does not hang heavy. We visit the marine laboratory of California University once more, and then enjoy idling on the rocks above the bay, watching an oil steamer from Honolulu come gently in, while the sunset falls on the picture.

Then with night we return by train to Castroville, to continue on ten miles to Pajaro (Pah-hah-ro), where another branch of the railroad takes us to Santa Cruz.

SANTA CRUZ

WE ARE now nearing the end of February and the rainy season is on, and we are given a day of rest in Santa Cruz by the rains. When one cannot take pictures of what he sees, to perpetuate it, it is useless to proceed on so long a journey as ours, for even the best memory, as years go by, will fail to recall many scenes. So we simply sit about the fire in a home-like hotel and read of this region,—of the good salmon fishing close by and of old Mission Santa Cruz, founded by Father Salaza Lopez in 1791. We chat with an old couple who are here to escape the rose-fever (much like the hay-fever of the East), an orange seller,

and the owner of a cafeteria in Los Angeles, where each takes his own tray from a counter, helps himself to what he wants, and before sitting down to eat, has it checked up and pays for it. When the rain holds off a bit, we walk through the great covered bridge to the heart of town, where rain and the darkness have compelled the neat little stores to light up as is done during Christmas week in the East.

The day of rest does us good, and we rise next morning all the better for it and eager to be off. It is still raining, but we resolve to "do" Santa Cruz at least. The gardens with their endless array of flowers make us forget the rain. By and by we board a car for Capitola (Kap-e-tó-la), going out Pacific Avenue, the main street, and passing the Catholic Church, in the mission style, which marks the site of old Santa Cruz mission. Redwood lumber yards arrest our attention by the almost scarlet color of the lumber now that it is wet. At the end of the line we take in the Marine Casino, one of the features of summer life at Santa Cruz, which is a great resort for Californians. Now the place is well-nigh deserted and ducks are swimming in the surf where in the summer thousands bathe daily. All the attractions of a Coney Island in miniature are here in the season, but now the little sheds are closed and their attendants gone. In the summer, too, there is a great tent city here, but of that there is now no vestige. Having exhausted this section, we return to town and take the cars to another point. This brings us to a queer old place known locally as the "Zoo," but in reality the winter home of a small circus. On the porches the

poles and tents are stored, while inside the structure are the cages, row on row, with no attempt to make a show place.

Over the way is the Cliff Museum, from which one may look out to the greyish-yellow sea breaking on the cliffs, but this, too, is closed at this time of year and only a desolate monkey remains outside on the porch.

THE BIG TREES

It is still raining, but we cannot delay any longer, and in the afternoon take the train for the Big Trees. The trip is a pretty one, out through dense tangles of pines, oaks, blue gums, and tall redwoods, through which one sees the opposite mountains with the vineyards, the vines cut down so low as to make them look like little dots on a quilt. Lumber camps are to be seen in the valley and six-horse teams dragging the trunks go slowly by. The ride, however, is only six miles long and we are soon at the Trees. Had the weather been fair we should probably have driven one way and returned by train, in order to see both routes.

The station itself is of redwood shingles, a picturesque little place, with the stupendous forest of giant trees all about. Not that the trees are so great in their circumference; it is the height which fairly stupefies us. We can see their summits only by bending way back. We are surrounded by a perfect wilderness, all about rise the forest-clad Santa Cruz Mountains, wild and beautiful, behind us is the grove of the Trees,—that is all. We pass through the gateway in the tall board fence enclosing them and a guide

in rubber boots, coat and cap meets us. He tells how the place was originally a Spanish grant dating back to 1846, and consisted of three hundred and fifty-six acres. When Fremont came it was the property of a white man named Graham, who lived out here among the Indians and who is supposed to have been a deserter from the crew of some vessel.

We pass the lodge of the guides and then to the trees themselves. First we are shown the "General Fremont," the tree beneath which Fremont camped for part of the winter during the Mexican war, making his home in a room 16x28x18 feet inside,—a chamber into which not less than fifty people can crowd. Later a shoemaker had his shop in this room, and within it an American is now buried. The tree stands just two hundred and eighty feet high.

None of the trees inside the fence now are allowed to be cut, though outside lumbering of the great redwoods continues. This we learn as we pass on to the "Jumbo" tree, on which there is a knot like an elephant's head. Close beside are the "Three Sisters," three trees connected by the root, where they were partly burnt by the Indians prior to 1848. One of the trees leans forty-two feet, otherwise they are in line. We pass a tree with a knot in the form of a buffalo head, and then over the very wet ground, covered with the decaying brown needles of the trees and their tiny cones, to the "Giant Tree," the greatest tree in the world. This tree had seventy-five feet broken from its top at some previous time, though within the memory of man and recorded history none of the trees have been struck by lightning, but it still

stands three hundred and six feet high and is twenty-two feet in circumference. It would make in lumber some two million feet which would sell at from eighteen to twenty dollars a thousand feet. In awe we look up through the wet limbs, the highest far up indeed, to the top, arching like a cathedral spire. Before Adam was, perhaps, this giant lived. On the ground beneath us some of his seeds have taken root and are sprouting and when we are long forgotten they perhaps will be mere toddlers in the forest.

Here, too, is the "General Grant," with a trunk twenty-two feet through. The trunks of the trees are covered with a yellow-green algae and moss. Some of these trees, it is estimated, are three and five thousand years old, some are even older.

To name all the big fellows would be tedious. There is the "Roosevelt," which it takes nine people, touching finger tips, to encircle (the General Grant requires fourteen); then the "McKinley," the "Sherman" and the "Ingersoll." Strangely enough, the roots of these trees are quite near the surface of the ground; there is practically no tap root at all. Very few birds inhabit the branches, and these chiefly blue-jays, although squirrels are numerous.

Down beneath the redwoods, the baytrees and the madrone, which latter sheds its bark annually like a sycamore, and sometimes twice a year at the top and once at the base, thrive lustily. We learn that from the tops of these shrubs to the first limb of the big fellows the distance is generally about one-third the height of the entire tree and that the diameter of a tree is one-third of the circumference. No per-

ceptible difference in the height of the trees is noticeable in a life-time. It takes about sixty rings at one ring a year to make an inch increase in height, but as these rings are counted on both sides it takes thirty years to increase the diameter of the tree an inch. Some trees will have perhaps twenty-five rings to the inch, others upward of sixty.

There is one place here in the San Lorenzo (Lo-ren'zo) Cañon where a tree was upturned and the hollow has partly filled with needles and cones. There it was, the guides tell the rustic, that Noah got the lumber for his ark. Maybe it was. Who knows?

In cutting the redwoods outside the grove, a saw ten to fourteen feet in length worked by two men (one at each end) is employed. It will take the pair about a day to cut a good-sized tree. First the tree is cut perhaps a third of the way across, a wedge-shaped incision. Then the men attack the tree on the other side and by means of wedging make it fall in the direction they wish. This is in order to avoid breaking the others in its descent. A crew of men then peel off the bark to use for souvenirs. This is spongy to the touch, but not easily severed from the tree. Then the log is cut into links of from twelve to forty or fifty feet in length for the mill.

We have plenty of time to spare at the grove before the train leaves and so see it thoroughly. Then, finally, we return to Santa Cruz for our possessions and again by railway to Pajaro. We have a forty-nine-mile ride ahead of us to San Jose (Ho-zay'), the Garden City.

SAN JOSE, THE GARDEN CITY

SAN JOSE, we read in the railway booklets as we spin along, is famed for its prunes, apricots, peaches, plums, apples, grapes, and nuts, its seed and its vegetables. It is the greatest beet cultivating center and tool manufacturing place in the West, and the second



SAN JOSE, A TYPICAL SMALL CITY OF CALIFORNIA

city of fruitland in its general agricultural output. Here are the great canneries and the green-fruit packeries, and here from May to November unripe or ripe fruits and after that dried fruits, are prepared. This is the famous Santa Clara fruit section, named for the mission of Santa Clara founded in this valley in 1777, and to which at one time over fourteen hun-

dred Indians came to worship. There are very nearly nine thousand Indian names on its books.

It is almost one in the morning when we get to San Jose and so hurry to the hotel and to bed. The next morning we readily understand why San Jose is called the Garden City. We are charmed with it at once. Trees are set out along all the avenues with ivy climbing up their trunks. Flowers, too, and plants and palms everywhere meet the eye.

When we get among the stores we find that very nearly every one of these has a bicycle rack in front, for so level is the valley that bicycling is the popular mode of locomotion here. We walk along to the school-house, which stands in a fine garden, then through the park before the City Hall and the State Normal School, to take a peep at the first skyscraper of San Jose, which is now rapidly going up. On the sidewalks men peddle violets at a dime a bunch and in the grocery windows all manner of nuts are for sale.

Over the city there rises a very tall electric light tower, the four piers of which are joined by a series of twelve concentric steel rings. The globes are at the top. Looking up toward them, we are reminded of the Eiffel Tower of Paris. The tower stands at the intersection of the two most important streets of the city and from it we overlook the principal parts of San Jose. It is such a clean, modern city that there are few actual sights as such, excepting the great Notre Dame Convent, past which we walk. On the telegraph poles, too, we note "city directories," tin boxes with a glass pane in the cover and a handle

at the side, on the turning of which latter the names of leading firms appear under the glass.

We walk over the city, peeping at its fruit stores and canneries, and then engage a buggy to visit the largest seed farm in the world.

THE LARGEST SEED FARM IN THE WORLD

THIS is out near the town of Coyote (Ki-o-te), and embraces some three hundred and ninety acres. As we ride out of the town we note the many foreign names of shopkeepers. Here is a French laundry, run by the Braiquets (Bri-ketts), and there are shops kept by the Bercovichs (Bur-ko-vicks) and the Viseglias (Viz-zee-gee-ahs) and goodness knows who not. Then



SEED FARMS, SAN JOSE

there are Chinese laundries and there is a St. Patrick's Church, built in imitation of the one in New York. And everywhere there are flowers.

When we strike the open country we ride through great bare orchards and pasture land, with here and there a peach grove just beginning to bloom, and the bees are singing in one great oratorio.

Finally, we come to the seed farm,—endlessly long rows of green seedlings of vegetables stretching to distant trees and still more distant clumps of buildings. Acres of vegetables, in various stages of growth, are seen on all sides and in these both Chinese and Japs are at work, using the same implements they do in far Japan.

We, however, are most interested in the magnitude of everything. There are two hundred acres in lettuce alone and it takes the men about two and a half months to seed them. Six men and a horse are required to do the planting, and that with the most modern tools. One acre of land will give from six to eight hundred pounds of seed. The plants begin to bloom in July and the seeds ripen in September. The plants are then cut with a sickle and placed in sacks to keep the birds from them. They are afterward flailed and screened and the seed then put into sacks for sale.

So it goes with the other things. Imagine a great lettuce field in bloom; hundreds and hundreds of acres. Or the soft green rows of parsley and of oyster plant; of carrots, leek, radish and parsnip, or anything else you can think of in the way of vegetables. So large is the place that it requires men to do nothing but

attend to the little things that we should almost think insignificant. For example, just think of two men being employed the year round simply to trap gophers and vermin that get at the plants.

It gives us a new idea of the magnitude of the seed industry and causes us to stop and think whence really come the vegetables that grace our daily board.

MT. HAMILTON AND LICK OBSERVATORY

OF COURSE every one who visits San Jose wants to pay a visit to Mt. Hamilton and the famous Lick Observatory. We have the choice of two excursions—that by night on the given evening when tourists are permitted to look through the telescope, or in the day time when other wonders of the place are shown. Unless we are well up in astronomy and can appreciate the differences between what this glass shows and what we have seen through other famous telescopes, we shall do best to make the trip by day.

We leave at six by wagonette, with a great burly western driver—who is himself a character—on the box, and some chatty eastern ladies for company.

Some of these “Knights of the Lash” were drivers of the overland and other stages in the “days of ’49,” when gold was discovered in California, and if they are in a chatty mood, can give many interesting and exciting stories of their strange and thrilling experiences.

The stage road over which we travel was built by the Supervisors of Santa Clara County at great expense. When James Lick finally decided to locate his great observatory on the summit of Mount Hamil-



LICK OBSERVATORY

ton, he made the building of this road one of the conditions, and the supervisors, recognizing the great attraction such an institution would add to their county voted the amount necessary and duly constructed the road. It is well engineered and is one of the finest mountain roads in the world.

Mount Hamilton was named after a popular Congregational preacher of Oakland, California, who was a great student of nature and often used to climb the mountains of this region.

The teacher of one of the wayside schools rides a part of the way with us and the children salute her as we pass by. As we leave the mail at their parents' homes, they throw poppies into the wagon to us,—a pretty custom brought from the home country.

The great smiling valley which we traverse reminds us greatly of the White Mountains in the vicinity of Fabyans. We stop at the Grand View House, eleven miles from San Jose, at an elevation of sixteen hundred and fifty feet, and then come in sight of the observatory on the top of the mountain. Toward this we keep ever winding. Meantime the driver tells of the observatory—how that James Lick of San Francisco, left a million and a quarter dollars for its establishment and then turned it over as a part of the Astronomical Department of the University of California.

Then we reach the half-way house. We lunch here and peep into a queer little den entirely covered with the skins of wild animals.

From this point on there is a turn in the road for every day in the year, and a mile for every day of the week. We continue through a cañon of the bearded oaks and see the mistletoe hanging in balls. We climb steadily higher and higher, overlooking the Santa Clara Valley. Then, finally, we come out on the top, at the famous Lick Observatory, the buildings rising about like some feudal castle on the crest of the hill.

Inside, the guides await us. They show us pictures and rare old autograph prints in the visitors' room; then the great library, leading off from it. After that we climb the stairs into the great dome, painted a rich green-blue, to peep at the large refracting telescope with its thirty-six inch glass, the second largest in the world, being second only to the famous Yerkes glass. The object glass here is of two lenses, one of common and the other of flint glass, these set

six inches apart. We look at these and at the eye-piece at the other end of the tube; at the oblong box-like instrument with which the stars are photographed; and then at the various apparatus for clamping the telescope and adjusting it to the image.

The telescope, we learn, is fifty-eight feet long and weighs three tons and a half. In spite of its great size and weight it can be moved with the gentlest touch of the hand. A clock-work arrangement causes it also to revolve with the motion of whatever star the astronomer wishes to follow.

Then the great dome of steel, weighing a hundred tons and moved so that any portion of the area may be opened, is explained, as is also the floor, which can be made to rise sixteen feet so as to be at a convenient height under the instrument in observing. The observation seat also slides up and down on a step-line, so that the operator may be comfortable when using the eye-piece.

This eye-piece, we learn, can be made to magnify from three hundred to three thousand diameters, though two thousand four hundred power is what is usually used. The glass cost about thirty-five hundred dollars. The lens has a magnifying power of two thousand six hundred diameters. It is scarcely larger than a pin-head; the larger the lens, the less the power.

Descending the stairs, we enter the open room beneath the dome. A black pier runs down it, this pier resting on the tomb of Lick. Lick was a pianomaker, rather than an astronomer, and died in San Francisco in 1876.

We are shown some interesting photographs of the moon and stars, and then allowed to adjust our watches to exact time. After that, we step out upon a balcony, and see the snow on the distant Sierra Nevadas, a hundred and seventy-five miles away. These and the Pyramid Peak of Lake Tahoe (Tah-ho) on the Nevada line are plainly visible.

Then, we saunter about as we may, until time for the stage to return.

THE OLD QUICKSILVER MINES

TO MAKE the tour of California without visiting the great quicksilver mines in the vicinity of San Jose would be to miss one of its very interesting sights. So we reserve the morrow for a drive out to the greatest quicksilver mine on the continent and the second largest in the world.

We pass the handsome Hall of Records of San Jose on this trip and are soon out again among the orchards. In harvest time great tables are set out in these, when the fruit is peeled by scores of men and women and laid on boards to dry in the sun, or else carted to the neighboring canneries. Later we get in among the ravines of the Almaden (Ahl-mah-den) creek and the country takes on a wild, rather sad aspect. Then, by and by, we pass the Casa Grande or manager's house, among the trees, and are at the mines. Great furnaces rise all about and wagons with the curious metal flasks for the ore pass and repass. Since long before 1850, when the present records begin, ore has been taken out, and in that time the mines have yielded something like nine hundred and thirty thou-

sand flasks of seventy-six and a half pounds each. There are over eighty-one miles of underground passages in the mine, these nearly level, to every hundred feet.

The process of securing the mercury or quicksilver is interesting. The miners, principally Mexicans, drill and blast, and then the dirt is hammered out into half-ton cars, which convey it to the surface. Thence it is taken to the head of the mountain and from there by gravity railway to a smelter where it is burnt. No alloy is used here, the mercury, or rather the *cinnabar* (sin-nah-bar), as the rock containing the quicksilver is termed, being literally roasted. The mercury then rises in fumes due to the heat, and these fumes pass into the condensers and there yield the mercury. Good cinnabar will yield about thirty-six ounces of mercury to the ton. From these furnaces, the mercury is then poured into iron hand-made flasks, through which the metal will not eat its way, the flasks weighing about ninety-three pounds when full.

Frequently in charging the furnaces with this ore, the miners here become what is known as "salivated," that is, poisoned by the fumes. The poison causes them to shake all over, and frequently the head swells badly.

What will especially interest us at this mine unlike any other we have seen, are the little troughs or gutters leading everywhere. From the furnaces in which the crushed ore is literally burnt, these gutters lead the quicksilver into the troughs and thence it trickles, little by little, from all parts of the works to a little

locked room, reminding us of the torture chamber of a Turkish prison. There it gathers for weighing, bottling and sale.

From the mine we step into the little mining town close by, for luncheon in the company dining-room. We meet here the town teacher, and we learn with surprise and pleasure that he uses the very *Little Journeys* one of which we are now making.

SANTA CLARA MISSION

WE NOW leave San Jose, and two miles farther north stop off for a few hours to see all that is left of the Santa Clara Mission, founded in January 1777. Almost the entire church has disappeared, the few walls that remained of the old structure a few years ago being used in the construction of the new church that occupies the old site. The old garden, also, still remains and here, each day, the fathers may be seen walking back and forth reciting their breviaries as they used to do in the old days. Pictures of the time when the Indians lived and worked here crowd upon the mind and our hearts are filled with sadness as we remember that there are scarcely any of these interesting mission Indians left.

A few miles farther on we reach the town of Palo Alto—the tall tree—near which is the

LELAND STANFORD UNIVERSITY

AT THE depot there are innumerable vehicles of every sort to convey students and others to the grounds. We leave behind us the town of Palo Alto, and ride through the trees to the great entrance ahead.

It is an open gateway of yellow and white pillars set on each side the road, on which is inscribed the tale of how the estate was acquired by the Stanfords in 1876 and how the university was founded nine years afterward. The road then leads on, lined on the right and left by rows of great date palms and



AN ONION SEED FIELD NEAR SAN JOSE, CALIF.

beyond these is a broad cement path for pedestrians and bicyclers. Nearly all the students here have bicycles, so we grow quite accustomed to the whirr of passing wheels.

Ahead the great buildings rise like a dream city, or some fantasy of Moorish construction,—first the huge gymnasium, with the glass cupola over its center,

then the museum and then other buildings. These are all large and they are all harmonious in style. Beyond them are the homes of the different departments of chemistry and so forth, and beyond these the new library. At the head of the avenue is a great central grass-plot on which stands an allegorical statue of Fame, behind which rises the famous Memorial Arch. From this an ivy-covered arcade leads to the main buildings. These are two stories high on each side, the center building having three stories.

Ahead and beyond the arch, we now enter the memorial court, a quadrangle of lawn divided by cement walks and surrounded by arcades of stone. To the rear, these arcades raise themselves into buildings and beyond those in turn there rises the spire of the Memorial Church. In the quad itself there is a palm, and a bronze figure of an eagle on a rock, another bronze group of four elephants supporting a *howdah*, also an excellent group of three members of the Stanford family. Behind all these appears the church, with its magnificent colored mosaic pictures. At the upper end of the arcade surrounding the court are hung notices of football, of articles lost by students and a time-table of the railway, announcements of debates, and the like.

Crossing the quadrangle, we find ourselves in the great gravel court, with a broad cement walk leading down the center to the Memorial Church, made especially handsome by three great arches in Moorish style. From this church, to right and left, extends still another covered arcade, of a one-story building,

and there is still another single-story structure at the corner of the court. These corner buildings, then, are connected with the arcade by lateral buildings, each with a tower at the center.

The church chiefly claims our attention. It is of yellow stone, as are all the rest of the buildings. The



THE ARCH, STANFORD UNIVERSITY

roof and spire are red, the clock showing that the hour is just 9:15. This red spire harmonizes with the mosaic on the front of the church, a picture of Christ among his people. Below it are the stained windows and then the legend: "Memorial Church. Erected to the glory of God and in loving memory of my husband, Leland Stanford." While we stop to admire,

we hear the chimes playing plaintively every quarter of an hour. The center of one side of the quad which is toward the church forms a gateway to it by three great Moorish arches, and above them Love and Faith and Hope and Charity are represented each in



A STUDENT AT STANFORD UNIVERSITY

a colored mosaic on a background of yellow, and separated by a gay floral pattern. Love has two children in her arms, Faith has a cross in the one hand and a cup aloft, and so on with the rest. We have not the time for a long look now, but in company with some students, pass into the church. We note that comparatively few of the Stanford stu-

dents are of the "dressy" type; they are evidently here for hard work, and not for show.

We enter the church through three great open-work bronze doors, reminding us of the bronze doors we saw in Washington. We step into a vestibule of mosaic, where stairs rise up to disappear behind glass

casings. Just opposite the door is a wall of marble with three sets of great oak double windows divided one from the other by the walls, in which there is a series of wreaths enclosing queer gilt patterns, with wavy circles of blue and of white inside; the whole effect is a most brilliant one. Over the entry, by which we proceed into the church itself, another of Mrs. Stanford's inscriptions is seen:

"Whoever thou art that enterest this church, leave it not without a prayer to God for thyself, for those who minister, for those who worship, and for those you love!"

The walls inside are of a greenish-yellow with three magnificent stained-glass windows adding rich color and each of these separated from the next by an equally fine large mosaic of Biblical scenes. Beyond, opens the great central dome of the church and beyond that the altar, a mass of color, the whole reminding us greatly of the Greek churches visited on our *Balkan Journey*.

From the church we continue up the arcade, past more of the ornate square buildings in which are the class rooms of different departments. To the rear of these other courts open with more buildings, so that there is what seems an endless compound. Looking in through the windows we see the chairs with one arm flattened into a desk, that are used throughout. One of us has a friend at Stanford, and we now proceed to look him up, here among the class rooms.

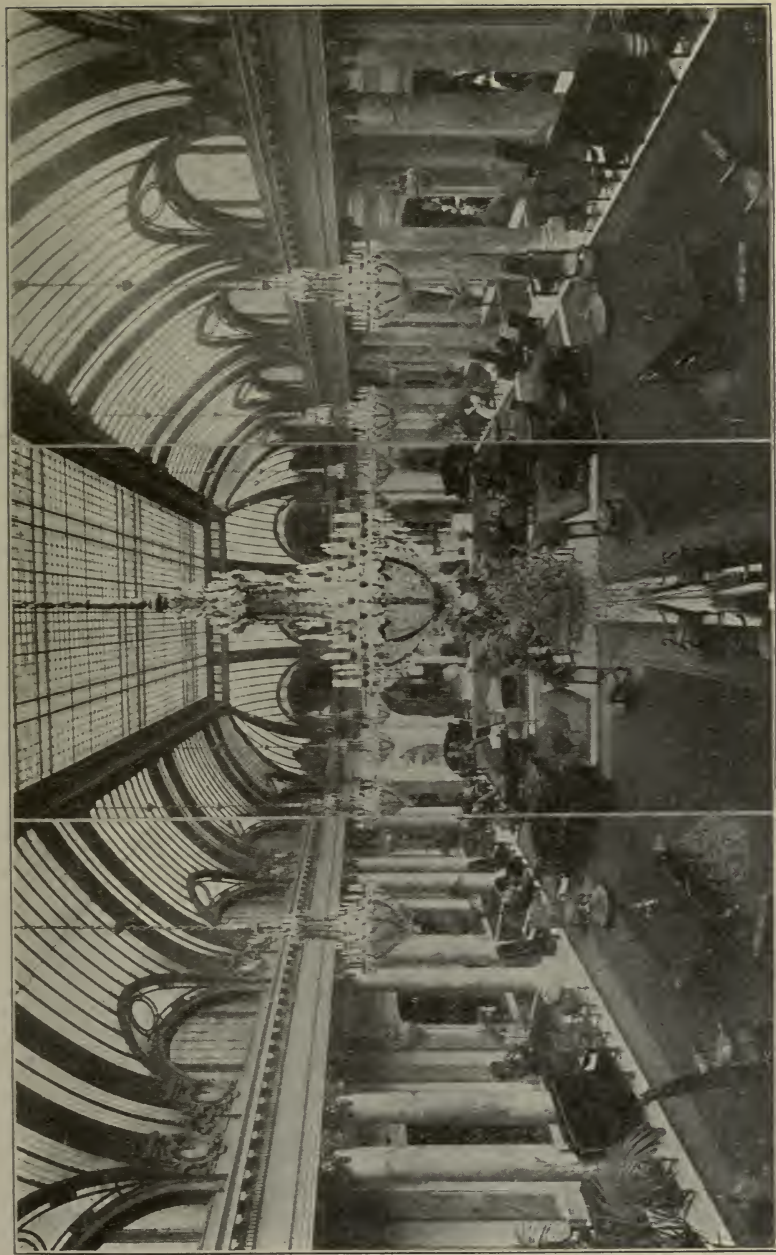
In his company, then, we ramble over the grounds. We have been fortunate in that our *Little Journey* has brought us here on the last day of February,

which is the anniversary of Mrs. Stanford's death, when memorial exercises are held. So we see the Stanford tomb, in one corner of the campus, opened. Here members of the family are placing flowers. Meantime we learn of the inner workings of Stanford. It is desired to keep the number of students down to two thousand, and of these, according to the charter, not over five hundred can be girls. So the entrance requirements are very strict. The faculty consists of about a hundred members.

By this time we have reached the University Tavern, where, as in Memorial Hall at Harvard, we dine with the students. The meal costs us fifty cents, but the students pay only a quarter for theirs. The tables are simple; boys and girls sit round them with here and there a professor.

We are led into the dormitory of the students, or "The Hall," as it is called, a building of long halls on which open the rooms, decorated by the inmates with all manner of curious things,—fish nets and the like,—some of which even hang on the transoms. Peeping into these rooms, we see Indian rugs, posters, couches and ornaments. Then we hear of the customs of Stanford, how all the juniors wear a high hat and rough brown corduroy trousers, and on the first occasion of their donning these, the seniors rush in and try to crush the hats. The freshmen wear no distinctive hat, but the sophomores appear in soft red ones, the juniors in green, and the seniors in great sombreros.

Of course we visit the museum, where are gathered the innumerable treasures brought by various members of the Stanford family from all parts of the world.



THE PATIO OR INNER COURT OF THE NEW PALACE HOTEL, SAN FRANCISCO.

There is an especially fine collection of ancient Egyptian relics, and of Venetian glass, besides some very interesting mementoes of old mission days in California.

As we wish to attend the memorial service in the church, we cannot stay as long as we would, so leave at a quarter to four, early enough to give us a chance to



STANFORD UNIVERSITY

see the Stanford students *en masse* and meet some of the more distinguished members of the faculty. The chiming of the bells throughout the service is particularly impressive. From the church, after it is over, the students file to the tomb and there, hats off, in the sun-down sing the plaintive "Hail, Stanford, Hail."

Before we have half finished hearing of the joys and sorrows of Stanford college life, evening comes on and we must return to Palo Alto, which is our starting-point for San Francisco.

THE CITY OF THE GOLDEN GATE—SAN FRANCISCO

THE ride from Palo Alto occupies only an hour and a half so that we are soon in San Francisco. - On our former visit the train circled around the city and gave us an outlook over the ocean, but the grade was heavy and considerable time was lost thereby, so the railroad officials and engineers sought out a new way of entrance. This could be had only by tunneling through the ranges of hills that came down to the very edge of the bay on its western side. So five large four-track-wide tunnels were made, at a cost of many millions of dollars, and now we circle around by the bay and reach the city through the tunnels.

And what a wonderful city it is! Wonderful in the marvelous way it is already built up after the earthquake and disastrous fire of 1906. This earthquake occurred one early morning in April of that year. It was a severe shock, which injured many buildings and sacrificed some lives, but its damage could have been repaired in a few days so that it would soon have been forgotten, had it not been that fire broke out, and to the great horror of the people and the fire department it was found that they could not draw water from the mains. A brief and speedy investigation revealed the awful fact that the earthquake had shattered the pipes apart, destroying some of them, and that the precious fluid which would speedily have put out the fire was running to waste where it could be of no benefit to any one. To add to the terror it was found that the Fire Chief was one of the comparatively small number who had been killed. A heavy cornice was shaken from the roof of the hotel in which he lived, and,

crashing through the ceiling of his bedroom, injured him so that he died almost instantly. For three terrible days and nights the fire raged. General Greeley and the federal forces were called upon for help and dynamite was used to blow up whole rows of houses in the hope of thus arresting the progress of the fire. Thousands of people were rendered homeless, and as



THE REFUGEES AFTER THE SAN FRANCISCO FIRE OF 1906 TENTING
IN GOLDEN GATE PARK

the fire spread, they hastily gathered together a few of their belongings and dragged them to a place of safety. A continuous procession was thus formed moving stolidly toward the western hills. Another procession moved towards the ferries. Every conveyance that could be pressed into service was brought

into requisition, and large sums were paid by people who found their houses in the pathway of the flames, and who sought to save what they could.

At last the further progress of the flames was stayed, and though an area larger than that of the combined areas of the Chicago, Boston and Baltimore fires was completely burned over, a great sigh of thankfulness went up to heaven that it was no worse.

Tents were put up in all the parks for the refugees who remained in the city, while thousands were carried by the railroads free of charge to outside towns where they were hospitably housed and cared for. Many of these tents remained for a year, before all the homeless ones were properly cared for elsewhere.

No sooner was the news of the fire flashed over the country than trainloads of food, bedding, clothing, medicines and every kind of needful supplies began to pour into the city. Congress made a large appropriation, and so did nearly every state legislature in the Union, and cities vied with each other as to which should do the most and in the kindest and best way to help the stricken city by the Pacific. It was such a wonderful exhibition of loving sympathy and generous helpfulness as the world had never before seen.

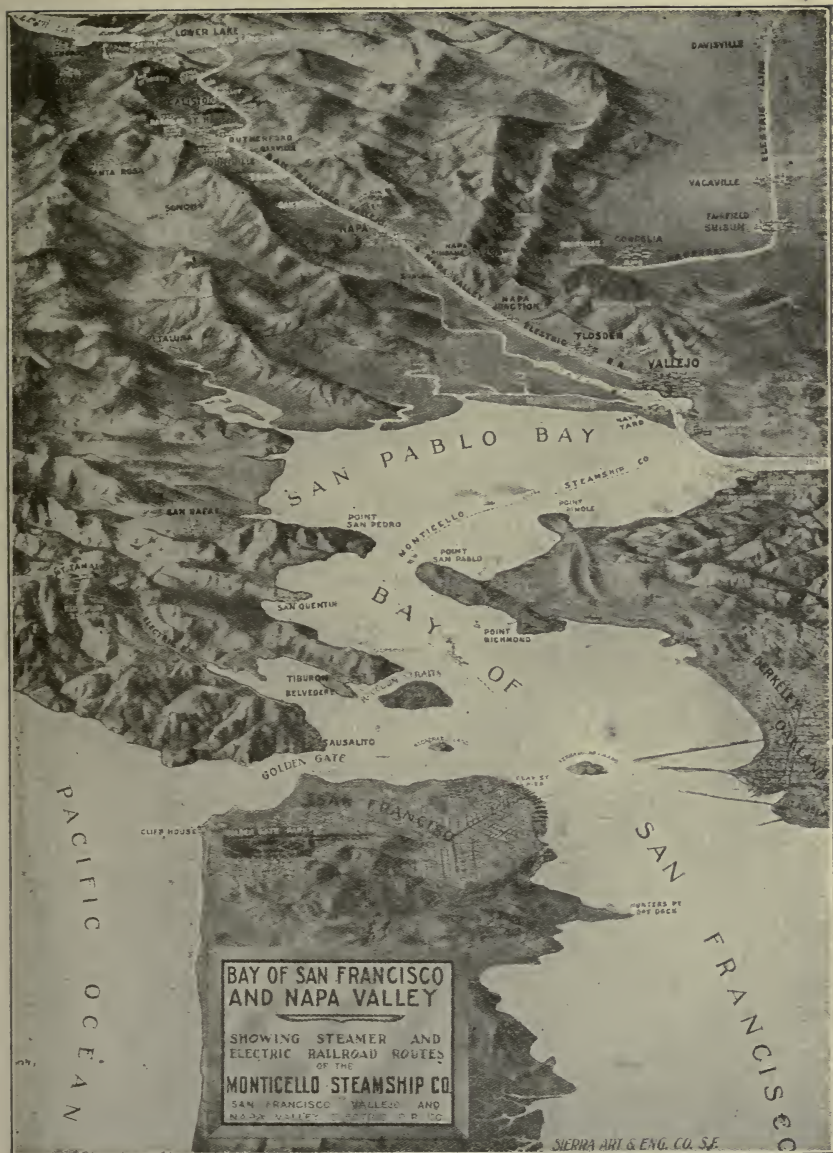
One interesting and curious feature seen long after the fire was the outdoor cooking kitchens that were established on the streets in front of almost every house. The earthquake had shaken down most of the chimneys, cracked the walls of many, and also shaken apart many of the gas mains. It was not possible, therefore, to use gas until the mains had all been inspected and repaired; nor was it safe to allow fires to

be built where chimneys might be cracked and thus allow the buildings to catch fire.

Armies of men were at work on the gas and water mains; every man that could handle a trowel and bricks and mortar was engaged in repairing shattered and cracked walls and chimneys, but work they all faster than men ever worked before, it was necessarily a long time before the inspectors declared it safe to build fires. Hence, during all this time, all cooking had to be done out of doors. The quaintest, queerest, cutest, funniest, strangest little houses were built on the streets, for all the world like play houses, and here every day, and three times a day, mamas and papas, cooks and Chinamen, negroes and Japanese, cooked the meals for the families. Sometimes the people ate on the streets, and the remarkable thing was that never before in the history of the city was there so little sickness as during these long weeks when all the cooking and much of the eating was done out of doors.

The ashes of the fire were not yet cool before meetings were held to plan for rebuilding the city. Organizations were formed and plans perfected for a new San Francisco. Immediate steps were taken for rebuilding the burnt district on these plans, and now all traces of the disaster of 1906 have been removed. In place of the old buildings there has arisen a new business district, covered with magnificent structures of steel and stone, constructed after the most improved models.

San Francisco is one of the most up-to-date and progressive cities in the world, and as we travel her streets and behold the wondrous changes that have been wrought, we shall not fail to admire this remarkable



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SAN FRANCISCO, CALIF.

example of pluck, courage and energy which characterize the American people.

THE LOCATION OF SAN FRANCISCO

BEFORE we start out let us study the map and see the exact location of San Francisco in reference to the Pacific Ocean and to the Bay, as well as to the neighboring cities. On another page is a beautiful relief map of the Monticello Steam Ship Company (which by their kind permission we are allowed to reproduce). The point of land at the bottom of the map is the end of the peninsula on which we rode coming in from Palo Alto, and we reached the city not far from the docks, almost in a line with the letter "S" in the word "San" written near the inscription "Hunters Point." The map shows that the residences of San Francisco now occupy almost the whole of the end of the peninsula. The tiny settlement that existed in 1848, when gold was discovered in California, occupied only a small area, a little to the left of the Clay Street Pier, and almost opposite Yerba Buena Island. In those days it was called Yerba Buena. The Mission of San Francisco was located farther inland, and the only way to reach it was by following a winding trail which led through and over the sand-hills that no one at that time ever dreamed would be covered by the streets of an active, busy and progressive city. Owing to the fact that all travelers who had visited this region spoke of San Francisco, the *Alcalde*, or Justice of the Peace, of Yerba Buena, Washington Bartlett, issued a proclamation in 1848, declaring the name to be changed to San Francisco, and as such it has ever since been

known. Many thousands of people all over the world believe that San Francisco is built on the Pacific Ocean. To a certain extent this is true since the city has grown across from the Bay side to the Ocean side of the peninsula. But the real city, the business heart of it, is on the Bay side, beginning at the Water Front, where the piers and docks are marked, and extending for a number of blocks to the West and South. All the rest may be called the residence sections of San Francisco.

THE NEIGHBORING CITIES OF SAN FRANCISCO

IT WILL be seen that the waters of the Pacific flow into the Bay of San Francisco through the Golden Gate. Just across the Bay is the little town of Sausalito which is reached by ferry, from which point we take the electric railway to Mount Tamalpais, the most crooked railway in the world. A little to the Northeast of Mount Tamalpais is San Rafael where another of the Missions was established in 1817, and still further to the North is Sonoma, where the last and most northerly of the twenty-one Missions was established on July 4th, 1823. A little to the Northwest of Sonoma is Santa Rosa, the home of Luther Burbank, whose wonderful achievements in the improvement of plants and flowers have made him world-famed. A few miles above Santa Rosa is Mount St. Helena, so named by the Russians when they occupied this part of the country. From this it will be seen that the Russians at one time came down from Alaska to a point not very far from San Francisco, and the Mission of Sonoma, together with a small fortress, was established,

for the purpose of holding them in check and preventing their obtaining too strong a foot-hold in California. Indeed, the historians tell us that it is very probable that had not the Franciscan Missions been established when they were, California today would be a Russian possession. Would it not be strange to hear the peculiar Russian names instead of the sweet Spanish ones and those of our own tongue? Across the Bay to the East from San Francisco lie the three cities of Alameda, Oakland and Berkeley. The four long wharves that are seen reaching out from Alameda, Oakland and Berkeley are piers built out into the Bay on which passenger and freight trains run, discharging their loads of human beings and freight to be taken across the Bay in ferry-boats, which ply back and forth, like the shuttles of a weaver's loom, without ceasing day and night.

THE OAKLAND MOLE

From the Oakland pier, the second from the top, the overland trains that run across the continent to the East are made up, so that when passengers leave San Francisco, they really do not take their train in that city, but have to be conveyed by ferry to the Oakland pier, where the train awaits them. This reminds us of the way many of the trains leave New York. It will be remembered that we have to take ferry in like fashion across to Jersey City.

This big Oakland pier is always known on the Pacific coast as the *Oakland Mole*. The Mole is a pier, but far more solidly built, and at the same time so arranged as to help form a harbor for vessels, or a

protection for the city. It has been very interesting to watch the growth of the Oakland Mole, as the population of San Francisco and neighboring cities has increased. When we first visited San Francisco many years ago, this Mole was but a single pier, built on ordinary piles, around and about which immense masses of rock had been dumped to keep it secure. Little by little this pier was broadened to allow for more tracks and a larger ferry building, and at last a new pier was built, parallel with the old one, but several hundred feet distant. These two piers were connected at the extreme end so that the space between them was enclosed. It now became the work of the Railroad Company to fill in this area between the piers and drive out the waters of the Bay. This was accomplished in a fashion as easy and simple as it was interesting. It was desired to deepen the water on the outside of the piers, so the railroad brought here a suction dredge, by means of which the earth at the bottom of the Bay was stirred up into the water and then sucked up through a large tube and discharged into the space between the piers. In a short time the mud settled to the bottom and the water ran off. With a rapidity that is startling to those who are not familiar with such work, the whole space was filled and now ten or more trains can run abreast on the Oakland Mole, for it has thus been made a solid pier connecting the ferry slip with the main land.

THE OLD SAN FRANCISCO AND THE NEW

BEFORE we start on our little journey through the city, let us take one more look at the map, for it will enable

us to understand a little better what we are going to see. It will be observed that there is a street that runs obliquely from the terminal letter "o" in the word "Francisco" up to near the Clay Street Pier. This is the main business thoroughfare of San Francisco and is called Market Street. As late as the year 1850,

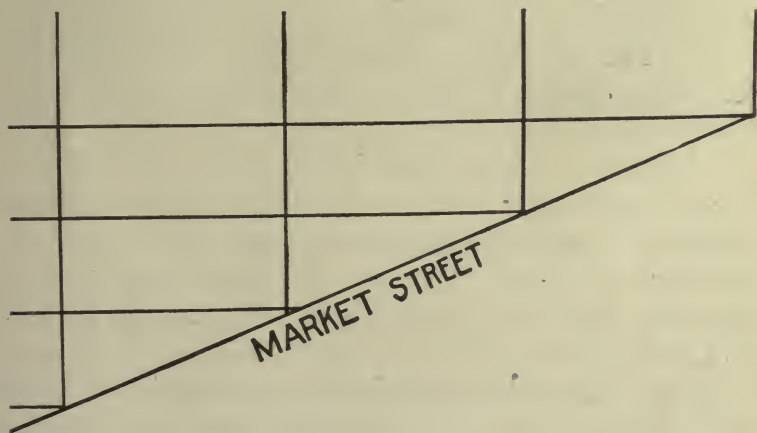


A GLIMPSE DOWN MARKET ST., SAN FRANCISCO, CAL

the site of this street was one vast high ridge of sand. In order to make building possible, a steam shovel was imported from the East and this ridge was shoveled into trains of cars which dumped the sand into the

Bay. There were numberless other sand hills and ridges which covered the present site of San Francisco and these were treated in the same fashion until what is now Market Street was extended into the Bay for fully a mile, with a corresponding increase of dry land both north and south of it. This "made-land" is now all densely built over with great stores, warehouses and other buildings.

The lay of the streets of San Francisco have always been confusing to a stranger, yet when once the method by which they are laid out is understood, their arrangement is seen to be very simple. The map shows the oblique angle of Market Street. South of Market the streets run almost at right angles; north of Market they run thus:



As the streets south of Market do not exactly correspond to the streets north of Market, and the angle is slightly different, this seems to add somewhat to the

confusion. Market Street is one of the noted streets of the world. It is a hundred and twenty feet wide and reaches from the Ferry Building (which is always locally spoken of as "Foot of Market") to Lone Mountain, a distance of several miles.

The San Francisco of 1840 had a population of three hundred. In 1848 and 1849 it speedily increased to fifty thousand and more. In 1910 the population was 416,912, making it the tenth city in size in the United States. In 1920 the number of inhabitants increased to more than 500,000.

PUBLIC BUILDINGS

As we saunter along the streets our attention is directed to many magnificent buildings. But we were probably first impressed with the Union Ferry Building, with its long extent on the water front and great tower and clock. Within is an extensive exhibit of the agricultural and mining resources of the State. The Federal Building and Mint will also interest us, as will many business blocks and banks.

In addition to these San Francisco has three hotels, which, because of their size and palatial equipment, have gained a world-wide reputation, and we must visit them on our trip. They are the Palace, on Market street; the Fairmont, on Nob Hill, and the Saint Francis on Union Square.

Union Square, which this hotel overlooks, is one of the smaller parks of the city. In it is located the beautiful and graceful Dewey Monument, surrounded by a green lawn and many waving palms.

A WALK DOWN MARKET STREET

Though we are located in the Palace Hotel, we decide

to take our morning meal outside. So we patronize one of the vegetarian cafes for our breakfast, where a regulation twenty-cent meal is served,—stewed fruit, mush and milk, two eggs, bread, butter and coffee. In the



DEWEY MONUMENT IN UNION SQUARE, AND ST. FRANCIS HOTEL,
SAN FRANCISCO, CALIF.

candy stores there are specialties of California candied fruits in boxes, with pictures of the missions burnt into their covers.

Cars jangle by in long trains, and we note how cosmopolitan are the crowds. In the stores we observe constantly local customs. All fowl save chicken, for instance, are suspended by the feet with the heads wrapped in brown paper. Japanese stores are numerous, and in all of these the three apes, signifying "hear no evil, speak no evil, think no evil," are sold. We are attracted by some very beautiful ivories here.

Off on a side street is the handsome square white stone Post Office, and farther on, to the right, is the Pioneer monument built by James Lick, behind which is the Hall of Records. Just in front of this used to be the City Hall, a picture of whose famous dome appears so often in the school geographies.

Violets are hawked along the walks and there are many buyers. In the drygoods stores there are post office sub-stations. Phonographs accompany the biographies in the penny parlors. In the novelty shops there are dressed fleas for sale. And in other shops there are the endless souvenir postals.

Not far from the Palace Hotel is the *Chronicle* Building, erected by the proprietor of one of the San Francisco newspapers. Across the street used to be the *Examiner* building. It is now rebuilt. A few steps farther along is the *Call* building, one of the noted steel-frame structures that stood through the fire, though all its interior equipment was destroyed. There are many large and fine buildings all the way along up Market Street.

After walking about two miles we reach Van Ness Boulevard, which was once one of the most fashionable streets. It extends from Market Street to the North Beach of the Bay, overlooking the passage of the Golden Gate. It is one hundred and twenty-five feet wide, and no heavy teams or street cars are allowed upon it. But the fire reached up to its eastern edge, and many of its fine mansions were blown up with dynamite to help arrest the flames. After the fire Van Ness Boulevard and Fillmore Street became the chief business streets of the city and not until early in

1910 did they begin to return to their former more quiet condition.

By and by we are in the section of the cemeteries—Calvary the first, east of Lone Mountain. Four graveyards in all surround this mount, and Laurel Hill, where many of the forty-niners lie, is the next of these to come in sight. On the mountain-top there is a great white cross to recall the Spanish missionaries. This is a landmark seen from all over the city. San Francisco's Children's Hospital stands out here and here twenty-five thousand volunteers of the Spanish War had their Camp Merritt.

Here, too, in the upper part of town is the south boundary of the Presidio (Pre-sid'-e-oh), Uncle Sam's greatest military reserve. It contains fifteen thousand acres. Near by stands a five-hundred-thousand-dollar home for the aged conducted by the Little Sisters of the Pocr.

THE REAL GOLDEN GATE

WE HAVE been going toward the Golden Gate and if we had gone by car we should have been told how the Gate is really three miles long, connecting the Pacific with the Bay of San Francisco. It is five miles wide in places, though just a mile at the inner entry. The points are strongly fortified and as the channel is from twenty-one to sixty-three fathoms deep and the tide rises eight feet, ships can come through easily. On the opposite side of the bay we see the hills of Marine (Ma-reen) County and distant Mt. Tamalpais (Tam-al-pie-iss), up which we shall go on the crookedest railway in the world, two hundred and eighty-one

curves in an eight-mile ride and a grade of seven per cent in places.

San Francisco Bay, we learn furthermore, runs inland for sixty miles, having a shore line of about one thousand miles, making it the greatest land-locked harbor in the world. All the navies of the earth could be harbored here. The Gate was named



THE GOLDEN GATE, LEADING FROM SAN FRANCISCO BAY INTO
THE PACIFIC OCEAN

by Fremont in 1846, for the fertile country all about and not as a gate of gold, as some might suppose.

We pass the old Italian cemetery hidden by spruce hedges, and then the great vacant space held for a military reserve, to where on the right the Golden Gate extends. We see the two forts on the points a mile apart, then the green land-locked harbor, and

one great sail coming in. Opposite is Alcatraz (Alka-trass) the military prison island and then again we note a light-house in the water, another sail and a skiff. We are high up over the Gate here and as we look at the scene with an eye to its beauty only we also recall the sad wreck of the *Rio Janeiro*, a few years ago. She went down close by with a hundred and eighty passengers aboard. Ahead, where some men are fishing on the rocks, is the great open Pacific. And there, just sailing toward Cathay, a great four-master passes out to sea.

High above the water we go to its very edge, just opposite a point which juts out very much as does Gibraltar. Then the entire Golden Gate comes into view, and ahead the Cliff House and the famous Sutro (Soo'tro) Baths. The Seal Rocks, with the seals basking, small and yellow, on the boulders, are also in sight. The Cliff House we find to be a grey structure resembling some of the old Scandinavian legendary castles, and is set in a colony of amusement resorts.

This is the third building that has occupied this site, the others having been destroyed by fire. In the earlier years of San Francisco this was the chief pleasure resort of the wealthy, for the drive was long enough to be agreeable and excellent meals were served here.

Below the Cliff House and away to the south stretches the sandy beach where thousands come daily, and especially on Sundays, to enjoy the ocean and its roaring surf. A grand boulevard, fit for automobiles has been made, which circles around into the heart of the city so that all classes now enjoy the Pacific to the full.

Golden Gate Park, with the Dutch windmill and the beach and the sand dunes (which covered the



THE CLIFF HOUSE AND SEAL ROCKS, SAN FRANCISCO, CALIF.

entire site of the park only twenty-five years ago), also unfolds to our view.

GOLDEN GATE PARK

THIS park is the second greatest in the country, being exceeded in area only by Fairmount Park in Philadelphia, and in Europe only by the Bois du Boulogne. It extends three and a half miles in one direction and a mile in the other, embracing seventeen hundred acres in all. Thirty-five years ago it was one barren waste of sand hills. Seven per cent of the city's taxes have been devoted to its maintenance, and already over thirty millions have been spent on it.

Here are monuments to the martyred McKinley, Francis Scott Key, who wrote the Star Spangled Banner, Thomas Starr King, the eloquent and patriotic minister who helped "save California to the Union," and raised by his lectures and appeals over a million dollars for the "Sanitary Fund"—used to help the wounded soldiers during the Civil War—Junipero Serra, the pioneer Franciscan Missionary, who really began the civilization of California, and others. There is also a grand band stand, with seats for ten thousand people, for San Franciscans love to come out on Saturday afternoons, Sundays and holidays to hear the excellent music provided by the military and other bands.

Near by is the museum, built in the style of an Egyptian Temple. This structure was allowed to remain after the California Mid-Winter Exposition, a great World's Fair that was held some years ago to show the wonderful winter resources of this growing "Land of the Sun-Down Sea"—as it has been poetically called. In the museum are many distinctively western objects of interest, art and nature, among them a fine collection of Indian Baskets, showing how artistic and skillful our native Indians were in this most primitive and useful of arts.

Winter and summer alike the park is crowded; the lawns and trees are always green; there is practically no snow, and while rains occur during the winter—or so-called rainy season—there is far less rain during this period than falls in any Eastern City all the time.

Following the car line now, we strike back again toward the heart of San Francisco.

THE CLIMATE OF SAN FRANCISCO

WE ARE interested in the climate, which has been largely responsible for the rapid growth of San Francisco. The average temperature here is 56, so that people can wear the same weight of clothing the year round. Generally, wraps are carried, and the overcoat is as much in evidence in July as in January. As in other parts of California there are two seasons, the rainy and the dry; the rainy season begins in November and extends well on into March or April, although there are occasional showers even in June, when the actual dry season begins. In 1905 there were just one hundred and ninety-five dry days. Many times in the so-called wet season the city goes two or three weeks without rain, and has sun all the time. As for snow, the last time that it was seen was on March 3, 1896, and then there was little of it.

THE ZOO AND AVIARY IN THE PARK

BEFORE leaving Golden Gate Park, however, we must visit the Zoo. Here are many strange animals, birds, and reptiles, many of which are native to the western mountains and deserts. We are especially interested in the monster grizzly bears, and in the herd of buffaloes, those monarchs of the plains that used to roam over the prairies of our middle west in such large numbers, but are now entirely extinct, except for a few such groups as those found here.

The aviary is a monster cage where hundreds or thousands of birds can be confined, and yet enjoy all the freedom of the fresh air and bright sunshine, bubbling fountains and a thousand and one trees, shrubs,

plants and flowers. It is a bower of beauty and song, and we could spend days here in watching the dainty, beautiful and gorgeously feathered little creatures and listening to their exquisite songs.

THE PRESIDIO RESERVATION

THE word presidio is Spanish for fort, and this was the old fortress, established by the Spaniards on the 17th of September, 1776, the very day that Lord Howe, of the British Army, was rejoicing in the City of New York at the thought that he was soon going to conquer the American revolutionists. But he was disappointed as we all know. We must not forget that it was the establishment of this presidio and, later of the Mission of San Francisco that gave the name to the great city we are now visiting, for had there been no such presidio and mission there is little doubt but that the old name of Yerba Buena would have been retained.

After the fire many tents were erected on the presidio reservation for the refugees. It is now occupied by the officers and soldiers of the United States. Our government has owned it since 1847.

The hills above the presidio are such fine sites for elegant homes, on account of the outlook over the park-like reservation, the Golden Gate, the hills of Marin County, and the great Pacific, that some of the finest residences of San Francisco are to be found there.

CHINATOWN

SAN FRANCISCO'S Chinatown is not far from the palatial Fairmont Hotel. It occupies some twelve or fourteen complete blocks, on the same site it held

before the fire, but every building is new and modern. There are some wonderfully fine stores, where hundreds of thousands of dollars worth of exquisite art treasures from China and Japan are on exhibition and no one thinks of going to San Francisco without visiting these stores.

The Joss-Houses, theatres, Chinese newspaper offices, restaurants, and the fine buildings of the Seven Companies—a powerful organization of Chinese merchants—have all been rebuilt, and Chinatown is as gay, as active, as resplendent in tinsel and show as ever. Let us enter one of the joss-houses. A “joss” is a family of Chinese coming from the same place, so each joss has its own house where its members go to worship. There we see the great idol, smell the incense and see the gay altars before which tinfoil money is burnt to deceive the god, and then step out on the balcony in the front of the main court. Varnished are the mural decorations depicting earth and sea and sky, all painted and carved and gilded, below them altars showing China divided into four parts, before which the Chinamen bow their heads three times on the matting while gongs are beaten thrice to attract the god’s attention. Here in the joss-house all manner of curious customs are observable. Rice and grain are placed before the joss, that the spirit may eat their spiritual essence. Another custom is to clap two sticks together and then throw them on the ground; if both fall right side up, it means good luck; if both fall face down bad luck is foretold, and if one falls each way the fortune is fairly good.

The joss-keeper has also a book of fortunes,—num-

bers on the ends of little sticks, which are shaken from a bag until one stick protrudes farther than the rest, when you look up the number it bears in the fortune book and see your fate.

SAN FRANCISCO STREET CARS

THE original site of San Francisco was much more hilly than the city is today. Hundreds of millions of tons of sand, earth and rock have been removed and cast into the Bay. Yet it is still a city of hills. The chief hills are named Telegraph Hill—from the top of which the lookout used to watch for the approach of vessels and then telegraph their arrival to the offices in the city below—Russian Hill, and Nob Hill. All are largely covered with residences.

To reach these it was imperative that some easy and rapid means of conveyance be found. Electric cars were not invented in 1873, at which time Mr. A. Hallidie, of San Francisco, invented, perfected and set in motion the first street cable cars ever operated. At the time of the fire there were two hundred and sixty-four miles of street railway in San Francisco, eighty-one miles of which were cable. To-day the cable cars have disappeared altogether, and there are between 350 and 400 miles of electric lines, operated in two systems: the Municipal Street Railway, owned by the city, and the United Railways, owned by a private company. The fare on both lines is five cents, with universal free transfers, which allow patrons to go from one part of the city to any other part without extra charge. The municipal line is especially efficient and well-managed, paying its employes a higher

rate of wages than the private line and still operating at a profit. An interesting feature of the municipal line is the Twin Peaks tunnel, $2\frac{1}{4}$ miles long, which shortens the distance from the west side downtown.

THE OLD MISSION.

WHEN the presidio was established in 1776, on September 17, preparations were well forwarded for the founding of the Mission, and on October 9, Padre Palou read the mass of dedication. The old adobe building, with its peculiar two-storied column-faced front still stands, though a modern brick church close by fell as the result of the earthquake and fire. This is one of the interesting spots to visit and no stranger in San Francisco should neglect it. To see the old altar, with the figures of saints and archangels, and the various objects used by the devoted padres in their endeavors to Christianize and civilize the native Indians always prove sources of great instruction and profit. As the Mission was built close to a little lake called Laguna Dolores (The Lake of Our Lady of Sorrows), the Mission soon came to be called the Mission Dolores (Doe-lo'-rays), though it is dedicated to Saint Francis, the founder of the Franciscan order.

A RIDE ON SAN FRANCISCO BAY

BEFORE we say Good Bye to the region of San Francisco we must take a ride on its spacious and wonderful Bay. How we wish all our readers could have been present as we were to see the Atlantic fleet and the Pacific fleet of the United States battleships, cruisers and torpedo boats sail into the Bay, through the Golden Gate, one February morning a few years ago. Hun-

dreds of thousands of people lined the shores and climbed to the hills on both sides of the Golden Gate, and it was a sight never to be forgotten.

The area of San Francisco Bay proper is two hundred and ninety square miles; the area of San Pablo Bay, Carquinez Straits, and Mare Island, thirty square miles; the area of Suisun Bay, to the confluence of the San Joaquin and Sacramento Rivers, is sixty-three square miles. The total bay area is therefore four hundred and eighty square miles; and there are hundreds of miles of slough, river, and creek.

Though the waters are by no means smooth and easy to navigate, for fierce winds often blow through the narrow pathway of the Golden Gate, and vexing cross-currents distress the unwary and unskilled boatman, sportsmen fully enjoy yachting on the Bay. One may sail a yacht from Alviso, at the southern end of the bay, in one general direction one hundred and fifty-four miles to Sacramento, before turning, and all of this is in inland waters.

Going south on the western side of the bay from the city, we see the great wharves, the Sugar Refinery and the Union Iron Works, where the battleships Oregon, Olympia, Ohio, Monterey, California and South Dakota were built. Then we see China Basin, which received its name from its being the rendezvous of the Chinese fishing boats. It is now being filled up for wharves and railway facilities for the Santa Fe, and other great railroad systems.

South San Francisco is the location of the slaughter-houses and packing-houses of San Francisco, and in the distance we can see, as we go farther south, the hills

behind the Leland Stanford Jr., University, the New Jesuit College, which is being moved from Santa Clara, and at last San Jose. Circling now at the south end of the bay we turn and go up on the eastern side, passing on the foothills in the distance the old Mission San Jose, and as we approach nearer to Alameda, the hill where Joaquin Miller, the poet of the Sierras, has his home. He it was who wrote that grand poem that every school boy and girl should know how to recite:

COLUMBUS

BEHIND him lay the gray Azores,
 Behind the gates of Hercules;
 Before him not the ghost of shores,
 Before him only shoreless seas.
 The good mate said: "Now must we pray,
 For lo! the very stars are gone.
 Brave Admiral, speak! What shall I say?
 "Why say, 'Sail on! sail on! sail on!'"

"My men grew mutinous day by day,
 My men grew ghastly wan and weak."
 The stout mate thought of home; a spray
 Of salt wave washed his swarthy cheek.
 "What shall I say, brave Admiral, say,
 If we sight naught but seas at dawn?"
 "Why, you shall say at break of day,
 'Sail on! sail on! sail on! and on!'"

They sailed and sailed, as winds might blow,
 Until at last the blanched mate said:
 "Why, now, not even God would know
 Should I and all my men fall dead.
 These very winds forget their way,
 For God from these dread seas is gone.
 Now speak, brave Admiral, speak and say"—
 He said: "Sail on! sail on! and on!"

They sailed—they sailed. Then spake the mate:
 "This mad sea shows his teeth to-night.
 He curls his lip, he lies in wait

With lifted teeth as if to bite!
Brave Admiral, say but one good word:
What shall we do when hope is gone?"
The words leapt like a leaping sword:
"Sail on! sail on! sail on! and on!"

Then, pale and worn, he kept his deck,
And peered through darkness. Ah, that night
Of all dark nights! And then a speck—
A light! a light? a light! a light!
It grew; a starlit flag unfurled!
It grew to be Time's burst of dawn.
He gained a world; he gave that world
Its grandest lesson: "On! sail on!"

Oakland is one of the largest cities in California, being the third in size after San Francisco, Los Angeles being the first. Here lived Edwin Markham, the author of another great and world-famous poem, "The Man with the Hoe," which was written here. Farther around to the east lies Berkeley, the location of the state University of California, and where Joseph Le Conte, the great geologist used to live. Then we see the Hercules Powder Works, and finally arrive at Mare Island, where the Government Arsenal is located. We pass Benicia, Vallejo and come back to Yerba Buena Island where the Naval Training School is established, and Angel Island on which is the quarantine station. Beyond, on the mainland of the north shore is San Quentin, one of the State Penitentiaries of California, and then the beautiful towns of San Rafael, Tiburon and Sausalito. In the little bays that indent the north shore one may always see numbers of houseboats where people from the city come, especially during the summer time, and live, thus enjoying an unique experience of actual life on the Ocean, within sight of their homes on land.

We have not half exhausted all the sights either of San Francisco proper, or of its neighborhood, but our book is already larger than it ought to be, so reluctantly we are compelled to bring its pages to a close and thus end our interesting "Little Journeys to Our Western Wonderland" with the sincere hope that, someday, every one of our readers may make the trip for himself and thus personally enjoy all we have attempted to describe.

THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION

ORIGIN

The Panama-Pacific International Exposition held in San Francisco in 1915, was authorized by the Congress of the United States as a fitting celebration of the completion of the Panama Canal. The funds were provided partly by the United States Government, partly by the State of California, partly by the city and county of San Francisco, and partly by private subscription. The entire expense approximated \$50,000,000. San Francisco was selected as the exposition city, and both the city and the State of California discharged faithfully and well the responsibility with which they were intrusted by the National Government.

LOCATION

Harbor View, extending for over two miles along the south shore of San Francisco Bay and just within the Golden Gate, was selected as the site for the exposition.

"No more picturesque location, nor one more appropriate to the celebration of a great maritime event, could be imagined. On the south, east and west the grounds are encircled by towering hills, rising successively from 250 to 900 feet above sea level, as the enfolding walls of a vast amphitheatre."

Upon this ideal spot the exposition authorities proceeded to create a suitable home for the celebration of one of the greatest events in the history of the world.

This was the fourth international exposition that had been held in the United States and the twelfth in the world, and the management felt that this exposition must excel in size, magnificence and beauty all that had preceded it. Their task was, indeed, no light one; but the great leaders of the enterprise were in every way equal to the responsibility.

They assembled the most noted architects, landscape gardeners, sculptors and decorators of the world, and these men brought their genius, skill and broad experience to bear upon the problem. The result was the exposition grounds as they appeared on the opening day, February 20, 1915.

GENERAL PLAN

The exposition grounds had an area of 635 acres and extend eastward from Fort Point, which marks the southern boundary of the Golden Gate, for a distance of two miles. A narrow strip of 65 acres extends still farther eastward, but it is separated from the harbor by the military post, Fort Mason. The greatest width of the grounds is a little over a half a mile. The narrow strip on the east was devoted to the amusement concessions. The exposition buildings were set in three groups, the twelve exposition palaces occupying the center of the site. On the west, and nearest the Golden Gate, were located the pavilions of foreign nations and of the various states. Beyond these was the section set apart for the livestock exhibit, and the great athletic field, with its ball ground, tennis courts and race track, occupied the extreme western part of the grounds.

The main exhibition palaces were set back about 350

feet from the water's edge, giving a space for a marine promenade. This was named the "Marina," and upon it was lavished all the skill of the landscape architect. Myrtle, cypress, eucalyptus and other trees and great beds of flowers were so placed as to form the most effective contrast with the lofty colonnades of the great palaces. The Marina was likewise an ideal spot from which to view the many water carnivals that took place during the exposition.

THE BUILDINGS

The eight palaces forming the center group of buildings were arranged in the form of a rectangle, four facing the water front and four, the hills of the city. The walls of these buildings were connected, forming an outside wall which was unbroken, except by a series of great archways and entrances giving access to the buildings and courts. The buildings in this group comprised the palaces of Education, Varied Industries, Manufacturers, Mines and Metallurgy, Liberal Arts, Transportation, Agriculture and Food Products.

Seen from a distance, this group of buildings had the appearance of "a great Oriental city with flashing domes and glimpses of brilliant, riotous colors." A closer view, however, showed them to be divided from north to south by three great courts and their approaches—the Court of the Universe, in the center; the Court of Abundance, dividing the group upon the east, and the great west court, known as the Court of Four Seasons. This central group of buildings and these courts contained the richest treasures of the exposition in architecture, sculpture, harmony and color.

Flanking this walled city on the east was the Palace of Machinery, the largest single structure of the exposition, and the Palace of Fine Arts flanked the group on the west.

THE COURTS

The Court of the Universe was the great central court of honor. Its dimensions were 700 by 900 feet. In design and decoration it was made to represent the



ARCH OF THE RISING SUN, COURT OF THE UNIVERSE

meeting place of the hemispheres. In the center was a sunken garden capable of seating 7,000 people. At the northern end was a great lagoon, ornamented with statues and fountains. Two great arches, the Arch of the Rising Sun and the Arch of the Setting Sun, formed respectively, the eastern and western entrances. Sur-

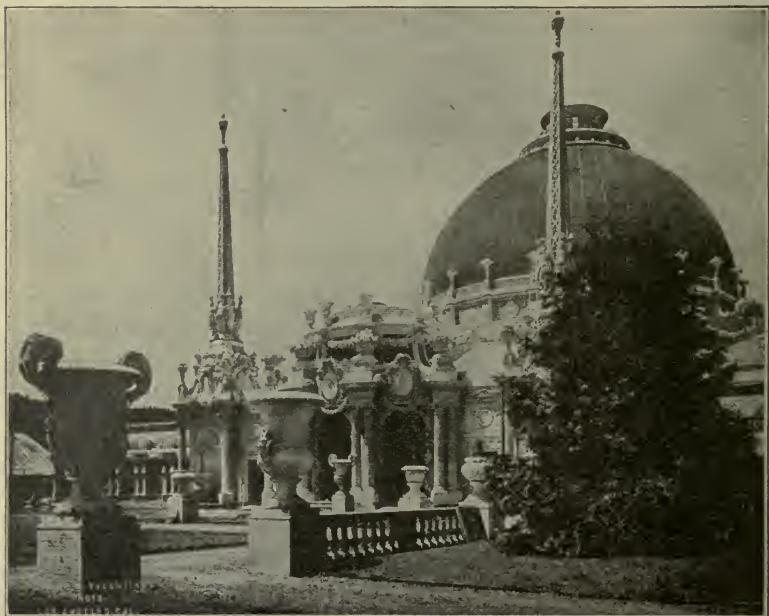
mounting the Arch of the Rising Sun was a group of statuary, "The Nations of the East," typical of the Orient and representing the Far East; over that of the Setting Sun was a similar group, "The Nations of the West." "In this group was shown the pioneers of all races who have settled the western part of the American continents from Alaska to the southern extremity of South America."

On the south the court was dominated by the great Tower of Jewels, 435 feet high and surmounted by an enormous globe, typifying the world. The shaft of this tower was in the form of a pyramid, and it arose in lofty terraces from a base 125 feet square, through which was cut an archway 125 feet high. This tower was the most striking feature of the exposition. It took its name from over 100,000 hand-cut glass "jewels" or prisms resembling great diamonds, rubies and emeralds, and so hung that the slightest breeze imparted a tremulous motion to them, "causing them to flash and change and scintillate in a thousand different tints and colors." The light thrown upon this tower at night produced a remarkably brilliant effect.

The Court of Abundance was the east central court and one of the most striking sections of the exposition. The design of this court had for its purpose the showing of the earth in its various stages of formation from the dawn of creation to the present geological age. The striking features embodied in this design held the visitor spellbound.

The Court of the Four Seasons upon the west is said to have been patterned after one of the historic Roman palaces, Hadrian's Villa. It was surrounded by a

beautiful colonnade, and in each of the four corners were groups of statuary representing the four seasons. This court was considered one of the most beautiful sections of the exposition.



THE PALACE OF HORTICULTURE

THE STATUARY

Over 250 groups and hundreds of individual pieces of statuary were used in decorating the buildings and grounds. This statuary was of two classes—that which symbolized certain ideals as “Victory,” “Abundance” and “The Seasons,” and that which illustrated historic events, such as “Pizzaro,” “Cortez” and “The End of the Trail.” Many of the groups and single pieces as well were of large size, and no description can convey

an adequate idea of the impression made upon the visitors by these remarkable works of art. They constituted one of the strongest features of the exposition.

THE COLOR SCHEME

The color scheme formed the most striking distinction of the Panama-Pacific International Exposition, and distinguished it from all its predecessors. The walls of the buildings were covered with a mortar that resembled cement. This was colored to represent travertine rock, and had the appearance of smoked ivory, giving a soft, cold gray for the prevailing color. Green, blue, red, orange and their various combinations were chosen for ornamental effects. The roofs of the palaces were a reddish pink, the domes were green, and the recesses in the towers were gold and blue. When seen from the surrounding hills, the general effect was that of "a giant Persian rug of soft, melting tones." It was "a poem of color that made words of description seem dumb and meaningless."

The entire color scheme was carefully worked out by M. Jules Guerin, who spent several years on the plan.

THE MURAL DECORATIONS

The mural decorations or paintings upon the walls were of the highest order of excellence. Like the statuary, they were of two classes—those representing historic scenes and those that were idealistic and mythological. Many of these paintings were remarkably impressive, like those decorating the Arch of the Setting Sun. On one side was "The Arrival on the Pacific Coast," a pageant containing portraits of Father

Serra, Bret Harte, William Keith and a number of other early Californians. Upon the opposite side was another painting representing the youthful pioneer leaving his New England home. These and a number of other striking decorations were the work of Frank Vincent Du Mond.

THE LIGHTING

The lighting constituted a part of the general plan and was closely related to the color scheme. The indirect system was employed throughout the grounds and no lights were visible, but thousands of electric bulbs were so placed as to produce practically a daylight effect in which all the delicate shades of the decorations were brought out. The lighting scheme was a magnificent exhibit of the progress made in electric lighting since the St. Louis Fair, in 1904.

THE EXHIBITS

But what about the wealth of material housed in these palatial buildings? To enumerate the exhibits would be impossible. However we can get some idea of this great exposition by a general view of the chief departments. The exposition was world-wide in its scope, and it represented the progress of the nations along all lines of endeavor, giving special attention to the progress made since the last great exposition in St. Louis in 1904. The exhibits were classified under the great departments for which the palaces already described were erected. Each department was then classified as the nature of its exhibits required. By this arrangement the visitors were able to find at once those exhibits in which they were specially interested.



